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ORIGINES;

OR,

REMARKS ON THE ORIGIN

OF

SEVERAL

EMPIRES, STATES, AND CITIES.

BY

THE RIGHT HONOURABLE

SIR W. DRUMMOND.

31048

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TO

WILLIAM HAMILTON, ESQ.,

HIS BRITANNIC MAJESTY'S ENVOY EXTRAORDINARY
AND MINISTER PLENIPOTENTIARY AT THE
COURT OF NAPLES,
&c. &c. &c.

My Dear Sir,

Allow me to dedicate this volume on Egyptian antiquities to you—the friend of many years—and the author of one of the most interesting works on Egypt, which has appeared in modern times.

W. Drummond.

Naples,
Sept. 17, 1824.

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ORIGINES.

BOOK IV.

OF EGYPT.

CHAPTER I.

Enquiry whether the Delta has been a gift of the Nile.

EGYPT, properly so called, may be described as consisting of the long and narrow valley, which follows the course of the Nile from Assuan to Cairo; and of the extensive plain which is situated between the northern extremity of that valley and the Mediterranean sea. The valley itself is bounded on each side by a range of lofty mountains, which, as they approach towards the north, recede from the Nile; and that mighty river issuing from between them, and soon dividing itself into several channels, rolls its copious streams to the sea, in traversing the

flat and fertile country, to which, from its triangular form, the Greeks gave the descriptive appellation of the *Delta*.

But although the name of Egypt be in strictness applicable only to the territory immediately bordering upon the Nile, yet this rigorous exactness has been seldom observed by geographers. All the mountainous region to the east of the Nile, and situated between that river and the Red sea, from the latitude of Berenice to that of Suez, is generally included in geographical descriptions of Egypt. On the side of Libya the dominion and even the name of Egypt were once far extended towards the west; and there can be little doubt, not only that each Oasis, but that a considerable part of Marmarica, as far as Mount Catabathmus on the Libyan coast, acknowledged the sway of the monarchs who reigned at Memphis. (Strabo L. 17.)

According to the Greeks, Egypt was bounded by Ethiopia on the south; by the Red sea and part of Arabia on the east; by the Mediterranean sea on the north; and by the mountains

and deserts of Libya on the west. The ancient limits between Egypt and Arabia Petræa appear not to be distinctly defined; and it may be even certainly concluded that they came in contact with those of Palestine at the river Sihor. The difficulty is yet greater in ascertaining the western border of Egypt. Between that country and Libya no landmarks were set, and no stones were placed, like that famous one of Greece, on one side of which was written, *this is Ionia*, and on the other, *this is the Peloponnesus.*

The ancients seem more generally agreed in fixing the southern point of Egypt at Syene, or at the isle of Elephantine, which was situated, as we learn from Strabo, at the distance of half a *stadium* from Syene, and in front of that city. Herodotus (L. 2. c. 17.) says that Egypt begins at the Cataracts and at the city of Elephantine; and Diodorus Siculus (L. 1. c. 30.) describes Egypt as being bounded on the south by the mountains where are the Cataracts of the Nile. These are the lesser Cataracts, which are situated, according to Aristides, at the distance of only seven *stadia* from Elephantine, and between that

island and Philæ. Syene is described by Strabo as an Egyptian city on the confines of Ethiopia; and Pliny (L. 5. c. 9.) speaks to the same purpose. In the Hebrew scriptures, (Ezekiel xxix. 10.) the tower of Syene (there written סונה *Sueneh*, or *Seveneh*,) is clearly indicated as being at one extremity of Egypt, while the border of Cush, (or Arabia,) was at the other. It must however be acknowledged, that the Egyptians appear to have had possessions to the south of Syene. In Strabo's time, as he himself states, the isle of Philæ was inhabited in common by Ethiopians and by Egyptians; and the religion of Egypt flourished not less at Philæ than at Memphis. There the remains of Osiris were said to be deposited; and the Priests were alone permitted to visit the sacred island, where they daily filled 360 bowls with milk, a simple, but in that region a costly offering, while they uttered cries of lamentation round the tomb of their God. (Diodor. Sicul. L. 1. c. 22.) Nor, if we believe Ptolemy, can we fix even Philæ as the most southern position of Egypt. That writer extends the Egyptian territory to Metacompso and

Pselcis, which cities were more than half a degree to the south of Philæ.

Egypt was divided into three provinces, denominated the *Delta*, the *Heptanomis*, and the *Thebais*. But these three great partitions of the country were also equally known by the names of the Lower, the Middle, and the Upper Egypt; and were subdivided into 36 districts, or *Nomes*, of which the Upper Egypt contained ten, the Lower the same number, and the Middle sixteen. (Strabo L. 17.)

The length of Egypt from south to north, from Syene to the point of the Delta, now called Cape Bourlos; may be estimated at about 540 English miles. The breadth of country, from the great Oasis to the Red sea, has about 5 degrees in longitude. The breadth of the Delta, in a straight line from Alexandria to Pelusium, measures about 150 English miles. The extent of the coast between those two cities, in following its general outline, round the lakes Bourlos and Manzeleh, may be estimated at 174 English miles. From the *vertex* of the Delta to Cape Bourlos, in a direct line, we may reckon about

102 miles; and if from the same spot we suppose the Pelusiac and Canobic branches of the Nile to have run in straight lines to their mouths, we may reckon the length of each at about 96 miles. But the real course of these branches exhibits many sinuosities; and even if it could be done, it would serve no purpose to calculate the extent of their meanders.

The ancients appear to have been generally of opinion, that the Delta was formed by the alluvial soil brought down by the Nile from the mountains of Ethiopia and of the Upper Egypt. According to Herodotus, Egypt was a territory gained for its inhabitants, and a gift of the Nile. (L. 2. c. 5.) The same historian afterwards observes (L. 2. c. 10.) that the region between the mountains above Memphis appeared to him to have been formerly an inlet of the sea; and he argues that this gulph, or inlet, had been filled up by alluvions of the Nile. Thus, according to Herodotus, not only the whole of the Delta, but a great part of the valley between Memphis and Thebes had been, to use his own terms, a gift of the river.

All the writers of antiquity, who have had occasion to mention the subject, have adopted, if I err not, the opinion of the father of history. The moderns, generally speaking, have in this instance at least, and with not many exceptions among geologists, coincided with the ancients.

It is not with the intention of totally rejecting an opinion thus sanctioned by illustrious authorities, and apparently confirmed by the testimony of ages, that I propose now to examine it. An opinion may be modified, without being entirely rejected. I have considerable difficulty in admitting the statement in question to its full extent. Let us however examine the grounds on which it is defended by its advocates.

I. According to Homer (Odyss. L. 4. v. 354.) the isle of Pharos was at the distance of a day's sail from Egypt; and hence it may be argued, that since his time the coast must have gained many leagues upon the sea.

II. In the time of Mœris, who reigned not quite 900 years before Herodotus visited Egypt, the Nile overflowed its banks, and inundated

the country below Memphis, when it had risen only 8 cubits; but at the period when the historian received this information from the Priests, no inundation took place unless the river rose to 16, or at least to 15, cubits. At the present time, Egypt experiences no advantages from the annual flood, unless the waters rise to 21 or to 22 pikes, or cubits, as marked on the Nilometer. These facts prove the gradual elevation of the soil of the Delta.

III. The nature of the soil of the Lower Egypt proves it to be alluvial, and the gift of the Nile.

I shall proceed to make a few remarks upon each of these arguments.

1. The lines of Homer are as follows:

Νῆσος ἔπειτά τις ἐστὶ πολυκλύστῳ ἐνὶ πόντῳ
Αἰγύπτου προπάροιθε, Φάρον δέ ἑ κικλήσκουσι,
Τόσσον ἄνευθ' ὅσσον τε πανημερίη γλαφυρὴ νηῦς,
Ἤνυσεν, ἢ λιγὺς οὖρος ἐπιπνείῃσιν ὄπισθεν.

Odyss. Δ.

Then there is a certain island in the billowy sea, before Egypt, that they call Pharos, as far off as a hollow-ship might achieve in a whole day, when a strong and favorable wind blows from behind. In spite of all that Pliny and others have said of

this passage, it ought to be considered as a mere poetical exaggeration. According to Cæsar, the distance from the Pharos to the shore amounted to 900 paces. Ammianus (L. 2.) makes the distance 1000 paces; and Aristides reckons it at 7 *stadia*. I have not been able to ascertain the distance at present. Some writers try to justify Homer by observing, that Αἴγυπτος was the name which he gave to the Nile, and that he meant to speak of the distance of the isle of Pharos from the Canobic branch of that river. But the accuracy of this defence may be questioned. The city of Canobus, situated near the mouth of the Canobic branch, was only 150 *stadia* from the Pharos. Now if Strabo, who mentions this fact, reckoned even by the Alexandrian *stadium*, the distance would be not quite 21 English miles; and Homer's γλαφυρὴ νηῦς, *hollow ship*, might easily have made three times that way in a whole day. Besides the isle is described as being Αἰγύπτου προπάροιθε, *ante Ægyptum*. But the isle of Pharos cannot possibly be said to be opposite to, or before, the mouth of the Canobic branch of the Nile. This defence seems therefore to be inad-

missible; and Homer's statement must resume its character of a poetical fiction.

2. According to the account given by Herodotus, the soil of Egypt ought to acquire nearly the elevation of a cubit in every century. Pococke indeed has endeavoured to explain the difficulty which arises from the statement of the historian, by supposing that when the Priests asserted that the Nile rose only 8 cubits in the reign of Mœris, they meant to speak of the increase of the river above its surface when lowest; but that when they spoke of its attaining 16 cubits, they must be understood to make their reckoning from the bottom of the water. The depth of the water when lowest is only 4 cubits, and consequently, the increase being 8, would give 12 cubits for the whole depth. In this case the elevation of the soil, between the time of Mœris and that of Herodotus, would amount to not quite half a cubit in the century. But Pococke's explanation is strained, and there may be reason to think, that this tradition was fabricated by the Priests, like many other fables which they seem to have taken a pleasure in recount-

ing to the credulous Greeks. No important changes appear to have taken place in the height of the annual inundation from the time of Herodotus down to the 14th century; and it is difficult to believe, that the rise of the Nile was different before he visited Egypt, from what it was after his death. In the 14th century a rise of 15 cubits is noted as *a good Nile;* and a rise between 16 and 17 cubits as *a very good Nile.* (Pococke's Travels, p. 253.) I think it unnecessary to enter into further details to show, that down to that period, no very important changes in the annual inundations had taken place from the time of Herodotus. A great alteration is indeed said to exist at present. A rise of 21 pikes, or modern cubits, is now required, before the inhabitants of Egypt bestow on their river the title of *a good Nile.*

We learn from Pococke that the Nilometer is divided into 24 pikes. The 4 highest of these have each 24 digits; the 4 next have 26 digits; and the remaining 16 have 28 digits. It is the opinion of the same learned traveller that the pillar has been changed, and the manner of computation altered.

It likewise appears from Pococke's statement, that the depth of the water, when lowest, is equal to 4 ancient cubits, and that at present 5 pikes, of 28 digits each, are reckoned for this depth. If then we measure from the bed of the river to the surface, and find, when the water is lowest, that 5 modern pikes give the same depth as 4 ancient cubits did, we cannot, (after allowing for the different lengths of the pikes as stated above,) mistake the relative proportions of the old and new Nilometers. In ancient times, when the water measured 16 or 17 cubits from the surface to the bottom, (at the height of the inundation,) there was *a good Nile;* and in modern times, when the depth measures 21 or 22 pikes, there is likewise *a good Nile,* because though the scales be different, the relative proportions show the results to be nearly the same. Thus you may graduate your thermometer by two different scales, and still have the same results. When the mercury rises to blood-heat in the tube, it matters not whether you say it stands at 28 degrees with Reaumur, or at 96 degrees with Fahrenheit. In like manner the result

is nearly, if not precisely, the same, whether you reckon it *a high Nile*, when the depth is measured by 18½ ancient cubits, or by 24 modern pikes. It follows from this statement, either that there has been no elevation of the soil of Egypt since the time of Herodotus, or that it is so small as to be of no avail in the present question.

3. The whole extent of the Lower Egypt, and part of the valley above Memphis, are supposed to have been once covered by the sea; and this vast gulph is said to have been filled up by the soil which the Nile has brought down in the lapse of ages. If we reckon the depth of this gulph at no more than 100 cubits, and calculate, as Herodotus seems nearly to have done, that the soil rises a cubit in a century, we must allow 10,000 years for the time in which Egypt rose from the bottom to the surface of the deep.

In order that the Nile should have brought down a sufficient quantity of soil to fill up so large a gulph of the sea as has been supposed, it must have once flowed on the summits of the mountains of the Thebais, and have gradually

hollowed out the immensely long but narrow valley which goes by its name. But is it certain that valleys between mountains have been formed by the rivers which run through them? If this terrestrial globe was originally in a fluid state, as seems to be thought by many, mountains and valleys might have been formed on its surface as it became consolidated. These effects might be in part produced by the action of gases in the interior mass; and the occasional developement of these gases, whether caused by compression, or by the accession of caloric, would raise the softer parts of the surface above the level of other parts which had taken more consistence. Many of the inequalities, with which the face of the globe is covered, were no doubt caused by the agency of both fire and water. In some places mountains, and chains of mountains, are entirely volcanic; and in others the loftiest elevations seem to be nothing else than marine depositions. But while the earth was yet in a fluid state, the gaseous currents, escaping from its interior cavities, would

disturb its surface; and valleys would sink as mountains rose, like the hollows between the waves in a stormy sea.

There appears, therefore, to be no necessity for supposing that rivers have gradually worn down the hills, and have made for themselves the vales through which they flow. They have cut those vales deeper than they originally were; but in following descents, wherever these presented themselves, they pursued the ways that nature had already made for them. However powerful the torrents, or however vast the streams, we can hardly imagine that rocks have crumbled before them, or that they have washed down mountains to the sea. How shall we suppose that the Nile, though a mighty river, has frittered down a chain of granite hills of more than a hundred leagues in extent, to form the valley through which it takes its course? What myriads of years must have elapsed, ere it could have glided in its present smooth and slimy channel from the lesser Cataracts to the neighbourhood of Cairo!

But if the space occupied by the Lower Egypt

was once a gulph of the sea, and if that country has been a gift of the Nile, it would be difficult to account for these facts in any other way, than by supposing the whole valley of the Nile to have been excavated by that river. This supposition, however, is encountered by the objections which I have just been stating, and which, it appears to me, cannot be obviated.

It will perhaps be said, that general opinion and the experience of ages sufficiently prove, that Egypt is fertilised by the soil which the Nile deposits in its annual inundations. May it not happen that this fertility is in a considerable degree occasioned by the water alone? We have all heard of soils that are rendered productive by simple irrigation; and the same cause is no where more likely to be attended with the same effect than in Egypt, where the sun is so powerful, and where rain falls so seldom.

I do not, however, mean to say, either that the inundation leaves no sediment behind it, or that this sediment does not contribute to the increase of vegetation. On the contrary I admit

that the Nile annually deposits a certain quantity of slime, which is one of the principal causes of the fertility of Egypt. But I at the same time maintain, that this layer of slime is extremely thin, and that by far the greater part of it is annually absorbed by those plants and vegetables which it helps to produce in such abundance.

If the slime deposited by the Nile, in its annual inundations, really contributed in any considerable degree to elevate the soil of Egypt, it can scarcely be questioned that the *stratum* formed by it would be now exceedingly deep. We know that Egypt was a rich and fertile region in the time of Jacob; and we must conclude that the arable soil was then sufficiently deep for all the purposes of agriculture. But if the slime deposited by the Nile be so considerable as to form every year a new *stratum*, by which a sensible additional elevation is given to the land, the height of that land cannot fail to have been very greatly increased in the course of 35 centuries. The slime is said to be black; and all the arable soil of Egypt is likewise black.

Now the *stratum* of black earth, which is the uppermost, rarely exceeds 2 or 3 feet in depth. The *stratum* below, which is composed of reddish earth, has about the same depth; and then we come to a bed of sand and gravel. Is it possible, after hearing this statement, to contend that the black slime deposited by the Nile has contributed much to the elevation of the plain of Egypt? Allowing the red earth as well as the black to have been originally the slimy mud deposited by the river, we cannot reckon that this precious gift of the river has elevated the soil more than 5 or 6 feet from the deluge to the present time.

But it seems to me extremely questionable, whether there has been any sensible elevation at all produced by this slime. The mud is black, and in passing through the pores of the earth, over which the inundation is spread, the water which contains this mud may tinge the soil to the depth of 2 or 3 feet. A very small quantity of earth, held in solution, will suffice to give water the character of being muddy; and the quantity of mud brought down by the Nile has

been exaggerated by travellers. One circumstance alone seems sufficient to prove that the soil of Egypt has not been elevated in any sensible degree by the slime deposited by the river. In situations where the ruins of ancient cities have not been exposed to the drifting sands, the foundations are still occasionally visible.

We learn from Fourmont, that there is an obelisc still standing on its base in the plain of Matariah, and on the site of the ancient Heliopolis. The base is covered; and the water during the inundation rises about 7 feet on the obelisc. Pococke has an argument, which appears to me very unsatisfactory, but by which he endeavours to prove from the present state of this monument, that the soil has risen 7 feet and a half. "I found," says he, "by the quadrant that the obelisc was sixty-seven feet and a half high; so that supposing it to be one of the four erected by Sochis, which were seventy feet high, and allowing three feet for the depth of the plinth it was let into, the ground has risen seven feet and a half." Pococke has said "seven feet and a half," from inadvertence. If the obelisc mea-

sured 70 feet, and the plinth 3 feet, the ground can have risen only 5 feet and a half, since the obelisc is still 67 feet and a half above the soil. Perhaps Pococke wrote 72 feet, and by an error of the press we have 70. This is the more likely, since Pliny estimates the height of the 4 obeliscs raised by Sochis, or rather Sothis, at 48 cubits.

But the earth which has accumulated round the base of this obelisc is by no means to be attributed to the regular and annual depositions of slime by the Nile. Heliopolis, according to Strabo (L. 17. p. 805.) was situated on a high mound. The waters of the Nile, during the period of the inundation, appear in ancient times to have been carried off by canals into lakes in the neighbourhood. The city was already deserted in Strabo's time. "In the course of ages the canals were probably filled up, and a mole of brick-work, which helped to keep off the water, was in part destroyed. It may then be imagined what were the effects of successive inundations poured over the site of a city already in ruins. Heaps of rubbish would be borne along by the

waters, and transported from one place to another by the currents. It is no proof of the general elevation of the soil of Egypt, that the base of the obelisc at Heliopolis is at present a few feet under the level of the ground around it, since this might have happened even if the ruins had never been inundated.

The ancient cities of Egypt were generally built upon artificial mounds, in order to be above the level of the water during the period of the inundation; and for the purpose of keeping off the river they were generally surrounded with enclosures built of brick. As these ancient cities were deserted by their inhabitants, (many of them in the time of Cambyses,) the mounds and enclosures fell into ruin, and as they were overflowed by the Nile, the traces of them are often difficult to be followed. There are, however, examples which show, that no general deposition of soil by the river has hidden the foundations of walls and of temples from the researches of travellers. Not far from the site of Heliopolis, and in the plain of Matariah, the foundations of an ancient building, I have been assured, are

still to be seen. Nieburh expresses a wish that the earth should be removed from the pavement of the temple at Heliopolis, in order to judge of the depth of the soil deposited by the river; but, as I have said before, the earth accumulated above the ruins of Heliopolis may not be owing to the slime deposited by the Nile. Nobody supposes that the soil, which yet covers many parts of ancient Rome, was left there by the mud deposited by the Tiber; and though this river has frequently overflowed its left bank since the days of Horace, it could only have transported rubbish from one place to another. The waters of the Nile have probably done no more.

But perhaps the most certain method of deciding the question, whether or not the Lower Egypt be the gift of the Nile, will be to compare the extent of the country, as given by ancient writers, with that which is assigned to it by modern geographers. If it be found that the ancients and moderns nearly agree upon this subject, it will be in vain to argue any longer in favour of the hypothesis which I have been endeavouring to combat. If the Delta has been

formed by alluvial soil, which has filled up a gulph of the sea, it must have greatly encroached on the Mediterranean since the time of Herodotus. It is true that the ancients, in speaking of the dimensions of the Lower Egypt, seem to differ much from each other; but the difference in their statements is more apparent than real.

Herodotus (L. 2. c. 6.) reckons the length of the coast of the Lower Egypt, from the bay of Plinthine to the lake Serbonis, at 60 *schœni*, equal to 3600 *stadia*. The Olympic *stadium* contained 625 English feet, and consequently, if the historian reckoned by Olympic *stadia*, 60 *schœni* would amount, within a furlong, to 426 English miles. But this calculation supposes so much a greater extent to the coast of Egypt than really belongs to it, that I can have no doubt that Herodotus reckoned here by the short *stadium* of 330 feet, equal to the 60th part of a *schœnus*, of which the regular measure appears to have been equal to 19,800 English feet: 3600 short *stadia* may be computed as nearly equal to 225 English miles.

The coast of the Lower Egypt, according to

Diodorus Siculus, (L. 1. c. 31.) was 2000 *stadia* in extent. Now this historian probably followed Herodotus in reckoning the length of the coast from the bay of Plinthine to the lake Serbonis; for it is clear that he did not mean to speak only of the base of the Delta, to which he afterwards assigns 1300 *stadia* (L. 1. c. 34.) But how shall we account for the great discrepancy between the statements of the two historians, if they did not reckon by *stadia* of different dimensions? Diodorus probably made his calculation by Olympic *stadia*, of which 2000 would measure 237 miles and a fraction. Thus the difference of distance, as stated by Diodorus and Herodotus, would amount to little more than 12 miles; and may be easily accounted for, if, as is very probable, the two historians took each a different point as forming the eastern limit of the bay of Plinthine.

I take a headland, about 17 miles from Alexandria, as the eastern limit of the broad bay of Plinthine; and I reckon the distance of Pelusium from the lake Serbonis at about 40 miles. I have already calculated the general outline of

the coast, from Alexandria to Pelusium, at about 174 miles; and I esteem the whole distance, from the bay of Plinthine to the lake Serbonis, at 231 miles, in following the circuit of the coast round the mounds, which separate the lakes Mareotis, Bourlos, and Manzeleh, from the sea. It follows that my estimate, made from the best maps I could procure, exceeds that of Herodotus by 6 miles, and falls short of that of Diodorus by rather more than 6 miles. May it not have happened, that the difference of the three statements arises from each one having assumed a different point as the eastern limit of the bay of Plinthine?

Eratosthenes, as we learn from Strabo (L. 17. p. 786.), reckoned 3300 *stadia* from the Pelusiac to the Canobic mouth of the Nile. An error has obviously crept into the text; for even in supposing that Eratosthenes made his calculation by the short *stadium* of 330 feet, the distance here given would amount to about 208 miles. If Eratosthenes had made so considerable a mistake as this, Strabo, who reckons the distance at 1300 *stadia*, would hardly have failed

to take notice of it. I have no hesitation, therefore, in reading 1300 for 3300. Diodorus Siculus (L. 1. c. 34.) reckons the length of the base of the Delta at 1300 *stadia;* and this is precisely the extent, which Strabo himself assigns to the coast between the Pelusiac and Canobic mouths of the Nile. Now 1300 Olympic *stadia* are nearly equal to 154 English miles. If we reckon 18 miles along the coast, from the point of Aboukir to Alexandria, and allow 2 miles for the breadth of the inlet between Aboukir and the point opposite to it, where it is generally supposed was once the Canobic mouth of the Nile; the whole distance from Alexandria to Pelusium, will amount to 174 miles.

But it may be said, that Strabo has reckoned only 120 *stadia* from Canobus to Alexandria, and 150 *stadia* from the Canobic mouth of the Nile to the isle of Pharos. Now if these were Olympic *stadia*, as it may be presumed, the first distance would be little more than 14 English miles, and the second distance would be not quite 18 English miles. It may likewise be

urged, that Pliny (L. 5. c. 10.) states the distance between Alexandria and the Canobic mouth of the Nile at 12 Roman miles; and that according to Ammianus Marcellinus (L. 22. c. 41.) Canobus was at the 12th mile-stone from Alexandria.

These objections may be easily answered. Where Strabo reckons the distance from Alexandria to Canobus at 120 *stadia*, he made his calculation for the foot-road between the two cities. (p. 801.) Where the same writer speaks of the distance between the Canobic mouth and the isle of Pharos, he reckoned by the length of the coast. (p. 791.) The isle of Pharos, as we learn from Cæsar (de Bello Civili L. 3.) was only 900 paces distant from the coast. It had been in a manner joined to Alexandria, in the time of Ptolemy Philadelphus, by a mole; and lay opposite to the north-west extremity of the city, of which the circumference amounted to 15 miles according to Pliny. But Josephus, in the speech which he puts into the mouth of Agrippa, (De Bello Judiaco L. 2. c. 16.) makes him say, that Alexandria was 30 *stadia* in length, and 10

in breadth. It would appear that Strabo had reckoned these 30 *stadia* into the distance which he gives between Canobus and Alexandria, since Ammianus places Canobus at the 12th milestone from Alexandria; and 12 Roman miles measure nearly 11 English miles, whereas we have seen that 120 Olympic *stadia* exceed 14 English miles. But as Greek writers continually employ the word *stadium* in expressing different divisions of the Egyptian schœnus, of the Persian parasanga, and of the Eastern mile, there is great uncertainty in their statements with respect to itinerary measures. Strabo may have made his calculation here by the *stadium* equal to 495 feet. This is the *stadium* by which Xenophon usually reckons in the Anabasis, and which was equal to the 40th part of a schœnus, and to the 30th part of a parasanga. 120 of these *stadia* would be nearly equal to 12 Roman miles. I admit that such might be the distance between the two cities; but I can by no means agree to the statement of Pliny, who reckons only 12 Roman miles from the Canobic mouth of the Nile to Alexandria. The city of Canobus must

have been situated at a considerable distance from the mouth of the river. This is clear from Strabo, who says, *Μετὰ δὲ τὸν Κάνωβόν ἐστι· τὸ Ἡράκλειον τὸ Ἡρακλέους ἔχον ἱερὸν, εἶτα τὸ Κανωβικὸν στόμα, καὶ ἡ ἀρχὴ τοῦ Δέλτα—after Canobus is Heraclium, which contains a temple of Hercules; then the Canobic mouth, and the beginning of the Delta.* Thus it appears, that Heraclium was situated between Canobus and the mouth of the river. Accordingly this mouth was frequently called the Heracleotic. Heraclium must have been near to the point of Aboukir, and this point was situated on the western side of the Canobic mouth of the Nile. Now according to the map, the distance from Alexandria to the point of land immediately opposite to Aboukir measures about 20 miles. Allowing 2 miles for the breadth of the ancient mouth of the Nile, we cannot reckon the length of the coast between it and Alexandria at less than 18 English miles.

I must, however, observe that the sea has broken in upon this part of the coast, and that we cannot now speak with any positive certainty

of the ancient channel of the Canobic branch, the waters of which are now turned into the channel of which the mouth is at Rosetta.

According to Diodorus Siculus (L. 1. c. 34.) each side of the Delta measured 750 *stadia*, and the base 1300. Strabo has estimated the three sides of this triangular land at 3000 *stadia*; and as he has also reckoned the number of *stadia* for the base of the Delta at 1300, he has been accused of contradicting himself. But though this author says that the Delta was so called by the Greeks from its triangular form, he does not say that it formed an equilateral triangle. He reckons, like Diodorus, 1300 *stadia* for the base; but he differs from him in assigning 850, instead of 750, *stadia* for each of the sides.

The statement of Diodorus, reckoning by Olympic *stadia*, would give us nearly about 89 English miles for each of the two sides of the Delta; and that of Strabo, reckoning likewise by Olympic *stadia*, would give us nearly 101 English miles. I have already observed, that if we reckon the distance from the apex of the

Delta, about 3 leagues below Cairo, to Pelusium and to Canobus, we shall find it to amount, according to the map, to about 96 English miles for each of those places. Thus if we suppose a straight line drawn from Pelusium to the apex of the Delta, and another from this apex to Canobus, the length of the two sides of the triangle will be equal to 178 miles according to Diodorus, to 202 according to Strabo, and to 192 according to our modern maps.

It follows from the enquiries which I have been making, that the coast of the Delta has the same, or very nearly the same, extent which it had almost twenty centuries ago. The distance along the coast from Pelusium to Canobus has not changed since the days of Strabo and of Diodorus Siculus. We may even say, that there is no increase of the extent of the whole coast of the Lower Egypt, between the bay of Plinthine and the lake Serbonis, since the time of Herodotus, who flourished nearly four centuries and a half before our æra. The remains of the ancient Pelusium are still visible; and near them

are the vast ruins of Tanis, the Tsoan (צֹעַן) of Scripture, a city that was built 7 years after Hebron. (Numbers xiii. 22.) But Hebron was the city where Sarah died; (Genesis xxiii.) and we cannot therefore doubt that more than 37 centuries have elapsed since Tsoan was founded. How happens it then, if Egypt be the gift of the Nile, that not only is Pelusium still found close by the coast, but that the ruins of Tsoan are still to be traced near to the Pelusiac mouth of the Nile, and on the borders of the lake of Manzeleh? How comes it that the coast has not extended beyond Pelusium; and that the traveller can still discern the prostrate columns, which supported the roofs of those edifices in which were once assembled the Princes of Tsoan? Why, if the Lower Egypt be formed of alluvial soil, which drove back the sea from Memphis, has its coast, in the course of many ages, not been extended beyond Pelusium, Mendes, Canobus, and Racotis? If the soil be yearly elevated by the slime deposited by the Nile, how happens it, that in our days, frag-

ments of obelisks, of pillars, and even of statues, are found uncovered on the plains of Tunis?

Upon the whole then, I am inclined to dissent from the opinion of those, who consider the Lower Egypt as a gift of the Nile. I believe, indeed, that that country was once covered by the sea. The proofs of this fact are clearly established; but it by no means follows, that the space now occupied by the Lower Egypt was a gulph of the sea, which has been filled up by the soil brought down by the river. When the sea retired from covering the country, it was probably an immense marsh, which only became habitable after it was drained. In this sense I can have no objection to say with Herodotus, that the greater part of the Lower Egypt seems to me, as it did to the ancient priests of Egypt, εἶναι ἐπίκτητος Αἰγυπτίοισι, to be a land acquired by the Egyptians.

If the reader should be desirous to know the relative proportions, which the different Greek *stadia* bore to each other, as well as to the itinerary measures of the Orien-

talists, I shall subjoin a few observations on this subject; and although these observations must be short, they may help to elucidate some parts of the preceding pages.

When the Greeks made computations of distances of any considerable extent from their own observations, or when they wished to assume to themselves the merit of having made any particular calculation, they generally reckoned by the Olympic *stadium*. D'Anville estimates this *stadium*, which contained 600 Greek feet, at 94½ toises, or 567 French feet, equal to 605 English feet. I am aware that the common calculation gives 16 English for 15 French feet; but this is not accurate, the French foot being to the English as 1068 to 1000. Accordingly if we were to reckon the number of English feet in an English mile, by adding only one English foot for every 15th French foot, we should soon perceive the error of the calculation. An English mile is equal to 4936 French feet, and to 5280 English feet. If we reckon only 16 English feet for 15 French feet, we shall have no more than 5224 English feet for the English mile. I therefore reckon 605 English feet, in round numbers, as equal to 94½ toises. But D'Anville has estimated the length of the Olympic *stadium* at 94½ toises, in reckoning by the short Greek foot. Now the Olympic *stadium* was measured by 600 long Greek feet. The foot, called the Olympic foot, exceeded the short Greek foot, according to some writers, by 868 decimals of an inch. This statement is probably exaggerated. The Olympic foot contained 4 palms, and the

palm in question here was the δοχμὴ, or δακτυλο-δοχμὴ—the breadth of the four fingers compressed, equal to 3⅓ inches. Consequently the Olympic *stadium*, containing 600 of these long Greek feet, was equal to nearly 625 English feet.

But the Greeks frequently employed the word *stadia* to denote different portions of the schœnus, of the parasanga, and of the eastern mile. There may be reckoned, besides the Olympic *stadium*, one of 729 English feet—one of 548 English feet—one of 495 English feet—one of 435 English feet—and one of 330 English feet and about 5 inches.

The *stadium* of 729 English feet was an itinerary measure of Asia Minor. It seems to have been designed to give the 27th part of a schœnus, the 20th part of a parasanga, and the 9th of an eastern mile. Le Roy and Bailly are of opinion that this stadium was the same with the Alexandrian. D'Anville says that an Englishman, Thomas Smith, ascertained its length to be equal to 729 English feet.

Cassini pointed out another *stadium*, which the French Academicians reckon at 85 toises, 3 feet, 7 inches, or 513 French feet, 7 inches, equal to about 548 English feet, 8 inches. This *stadium* was equal nearly to the 36th part of a schœnus, and to the 27th of a parasanga. Posidonius assigned 240,000 of these *stadia* to the circumference of the earth.

D'Anville has estimated at about 75½ toises, or 453 French feet, equal to 483 English feet, the *stadium*, which he reckoned as equal to the 10th part of a Roman mile. I

think that D'Anville has shortened this *stadium* too much. I hold it to have been originally an eastern measure, equal to 495 English feet, and answering precisely to the 40th part of a schœnus, and to the 30th part of a parasangа. It seems to me, that this is the *stadium*, which is generally understood by Xenophon. According to D'Anville, Eratosthenes reckoned 700 of these *stadia*, in round numbers, to the degree. From the shadow of a gnomon at Alexandria at the summer solstice, when a gnomon was supposed to cast no shadow at Syene, because this place was believed to be under the tropic, Eratosthenes attempted to measure the circumference of the earth. Supposing Syene to be directly under the tropic of Cancer, the obliquity of the ecliptic would be there, at the summer solstice, equal to the height of the pole; but as Alexandria has rather more than 31 degrees of Northern latitude, the solstitial distance there would be about one fiftieth part of the whole circumference of the terrestrial meridian. It would then be only necessary to take about 50 times the distance between those two cities, to obtain the whole circumference of the globe. But Eratosthenes estimated the arc on the meridian, as taken between Syene and Alexandria, at 5000 *stadia*, reckoning 700 of these for the degree. A crowd of objections have been urged against this calculation of Eratosthenes, which has been but very imperfectly described by Ptolemy. Syene is to the north of the tropic. Syene is not only not under the same meridian with Alexandria, but is removed from it by nearly 2 degrees of longitude. Alex-

andria has 31° 10′, and Syene 24° 5′ of N. L. Finally, 700 *stadia*, reckoning 75½ toises to the *stadium*, fall far short of the measure of a degree. But perhaps some of these objections have been too hastily made. Syene, in the time of Eratosthenes, was believed to be under the tropic. Eratosthenes could hardly fail to know, that Syene and Alexandria were not under the same meridian, because the whole of Egypt had been explored, and the distances between the cities measured by geometricians during the time of the two first Ptolemies. He might, however, say, for the purposes of a hypothetical calculation, let the real difference of longitude be passed over, and the two cities be supposed under the same meridian. But it may be urged that the geometricians had given 5000 *stadia*, each *stadium* being equal to 75½ toises, as the distance by the road between Alexandria and Syene, and that Eratosthenes has given exactly the same distance for the arc which he measured. Now it seems to me impossible that the land-measurers could have assigned this distance by the road, with all its sinuosities and inequalities, between the two cities; since this calculation would have fallen so far short of the truth as to be evident even to those who, without being geometricians, had formed any notions at all of the length of the way. The land-measurers, employed by the Ptolemies, probably reckoned by the direct distance in latitude between Syene and Alexandria, without reckoning the difference of longitude. The *stadium* employed by Eratosthenes, and probably by the land-measurers, comes now to be considered; and I really can see no good

reason for supposing it to be that which D'Anville calculates at 75⅓ toises. It may have been a *stadium* in use among geometers. I should reckon it as equal to about 525 English feet, and as making nearly a 28th portion of the parasanga. Thus the calculation of Eratosthenes may not have been so very inaccurate as some have supposed it to be.

The French Academicians have made mention of a *stadium* of 68 toises (about 436 English feet). This *stadium* was equal to the 34th part of a parasanga.

We come now to the stadium of 330 English feet, 5 inches. Aristotle (De Cœlo) mentions that the mathematicians (he probably meant the Pythagoreans or perhaps the Chaldeans) estimated the circumference of the earth at 400,000 *stadia;* and it follows that they assigned 1111 *stadia* and a fraction to the degree, or nearly about 330 English feet, 5 inches, to the *stadium*, which answered to the 45th part of a parasanga, and to the 60th part of a schœnus.

I reckon the parasanga at 14,850, and the schœnus at 19,800 English feet. I estimate the parasanga at more than 3 Roman miles, because it was equal to 3 long Persian miles, or 9000 long Persian cubits, as is evident from the tables of Abulfeda. The modern cubit of the Persians is something under 15 English inches, and their ancient cubit was a fraction under 20 inches. We must therefore be careful not to confound the modern *farsakh*, or *farsankh*, with the ancient parasanga, since the cubits by which they were measured were of different lengths.

Shah Cholgi has estimated the circumference of the earth

at 8000 parasangas, reckoning 22 parasangas and a fraction to the degree. We have seen that Posidonius had calculated the earth's circumference at 240,000 *stadia*, each *stadium* being equal to 548 English feet, 8 inches, and making the 27th part of a parasanga. The Arabians, and through them the Persians, may have had the tradition of this estimate, erroneous as it is, which was made by Posidonius, and with which the Arabians may have become acquainted when they applied themselves to the study of Greek philosophy. But as the most common portion of the parasanga used in Greek calculations, was the *stadium* of 495 feet, equal to the 30th part of a parasanga, Shah Cholgi probably thought, that Posidonius had employed it in his calculation. It appears that he was exactly faithful to this mistake; for 240,000 *stadia*, multiplied by 495, will give exactly 118,800,000 feet; and 14,850, multiplied by 8000, will give precisely the same sum.

The schœnus has been generally reckoned equal to 4 Roman miles, which I estimate at 19,340 English feet; but after a careful investigation I reckon the schœnus at 19,800 English feet. I shall now place before the reader a table of the relative proportions of the different *stadia* to the schœnus, to the parasanga, and to each other.

TABLE.

The reckoning according to English feet and inches.

Egyptian schœnus=19,800 feet.	Persian parasanga=14,850 feet.
Four Roman miles=19,340 feet.	Three Roman miles=14,505 feet.
Stadium of 729 feet, multiplied by 27=19,683 feet.	Stadium of 729 feet, multiplied by 20=14,580 feet.
Olympic stadium of 625 feet, multiplied by 32=20,000 feet.	Olympic stadium of 625 feet, multiplied by 24=15,000 feet.
Stadium of 548 feet, 8 inches, multiplied by 36=19,751 feet.	Stadium of 548 feet, 8 inches, multiplied by 27=14,814 feet.
Stadium (employed by Eratosthenes) of 525 feet, multiplied by 38=19,950 feet.	Stadium of 525 feet, multiplied by 28=14,750 feet.
Stadium of 495 feet, multiplied by 40=19,800 feet.	Stadium of 495 feet, multiplied by 30=14,850 feet.
Stadium of 435 feet, multiplied by 45=19,575 feet.	Stadium of 435 feet, multiplied by 34=14,790 feet.
Stadium of 330 feet, multiplied by 60=19,800 feet.	Stadium of 330 feet, multiplied by 45=14,850 feet.

Thus we see that all these stadia are either exact divisions, or approximations to exact divisions, of the schœnus and of the parasanga. [1]

[1] The reader may see what I have said on the same subject in the *Classical Journal*, Vol. XVI.

CHAPTER II.

Of the ancient names of Egypt and of the Nile.

THE most ancient names of Egypt were מצרים, *Mitsrim*, מצור *Matsor*, and הארץ חם, *harets Cham*, the land of Cham. These names frequently occur in Scripture, but especially the first. According to general opinion, Egypt was called Mitzrim after the second son of Cham. Bochart, who follows the punctuation of the Masorites, and who accordingly writes the word *Mitzraim*, or *Misraim*, in the dual form, thinks differently. *Misraim*, says he, *non est nomen hominis. Id non patitur forma dualis. Itaque cum in Chami filiis secundus censetur Misraim, nomine Misraim intellige, pater incolarum terræ Misraim, id est Ægypti.*

This objection appears to me to be of little

weight. The dual form is only given to the name by the Masoretic points; and to these points, especially when placed under the names of persons or of places not belonging to the nation or the country of the Hebrews, I am not disposed to pay much attention. If after all that has been written by Capella and Morinus concerning these points, they can find advocates still, let an exception be at least made with respect to proper names, which are not of Hebrew origin, or which are of much earlier date than can possibly be assigned to the points themselves. But were even these points of any authority, the argument of Bochart would not hold good. There are various instances, in which we find the names of men to have both plural and dual forms, such as אליקים, *Eliakim*, יהויקים, *Jehoikim*, אפרים, *Ephraim*, אפים, *Aphaim*. We even find the names of men with the feminine plural termination, such as מרמות, *Meremoth*, שמות, *Shamoth*, שמהות, *Shemhuth*. There is consequently no reason for denying that the second son of Cham might be named Mitsrim in the plural, or Mitsraim in the dual form.

But Bochart contends, that the name of Mitsraim, in the dual form, indicates the two divisions of Egypt into Upper and Lower. The Masorites probably wished to mark these two divisions, when they pointed the word. It seems, however, rather too bold to deny, that the proper name of the second son of Cham was given to him by the sacred historian; and this too upon a supposed partition of Egypt, which I shall presently show to be erroneous. Upon the principle adopted by Bochart, we might say that no individuals ever bore the names of Cush, of Phut, of Canaan, of Ashur, of Aram, or of Elam; for these were all the names of countries. But if this sort of reasoning were admitted, we might deny that any of the personal proper names of the immediate descendants of Ham, Shem, and Japhet, are mentioned in Scripture.

It seems, however, by no means improbable, that many of the immediate descendants of Noach might have received denominations from the countries in which they settled; and that it oftener happened that individuals received appellations from countries where they established themselves, than that the countries were named

after the individuals. The first settlers after the flood gave denominations to the various regions which they inhabited; and these local denominations were soon applied to the individuals who were the founders of kingdoms and cities. But those persons were as distinctly pointed out by the local names, as they could have been by any others. The second son of Cham might have been called Mitsrim after the country which was so named, and perhaps by himself; but Mitsrim was as much the particular appellation by which the Patriarch was known, as it was the general name which the Hebrews, at least, gave to Egypt.

With this understanding I am perfectly disposed to admit, that Mitsrim was the name of the country, before it became that of the individual. Bochart has clearly proved that מצור, *Matsor*, signifies a fortress; and that Egypt was so called either from its being a region fortified by nature, or from the word צור, *tsor*, which signifies *narrow*, and which is sufficiently descriptive of the valley of the Upper Egypt. I am however inclined to prefer the first of these two etymologies, because Dio-

dorus Siculus (L. 1.) and Strabo (L. 17.) have remarked, that Egypt was a country extremely difficult of access; and Diodorus, speaking of the Upper Egypt, observes that it seems not a little to excel other limited places in the kingdom by *a natural fortification* (ὀχυρότητι δὲ φυσικῇ) and by the beauty of the country. With regard to *Mitsrim*, it is probably so written for *Matsorim*, as Bochart has suggested; but I cannot agree to give it a dual form on the perilous authority of the Masorites. Ptolemy and Strabo assign three great divisions to Egypt. Not one ancient author of note has assigned to it only two. *Mitsrim*, therefore, with its plural termination, denotes the Upper, the Middle, and the Lower Egypt.

The land of Cham seems to have been the poetical name for Egypt among the Hebrews; and accordingly it occurs only in the Psalms. It is a tradition at least as old as the time of St. Jerom, that the land of Cham was so named after the son of Noach. (Quæst. in Genesin.) There may however be reason to think, that the Patriarch was named after the country, where it

is supposed he finally settled. In Hebrew חם *cham* signifies *calidus;* חום *chom* signifies *fuscus, niger.* In Egyptian we find several words which are nearly the same both in sound and in sense. Thus χμομ *chmom* signifies *calor.* χαμε *chame,* or καμε *kame,* signifies black. The Egyptians always called their country *Chemi,* or *Chame;* probably from the burnt and black appearance of the soil. Herodotus (L. 2. c. 12.) mentions that the soil of Egypt is black; and Plutarch says, that Egypt being in some places chiefly black, they called it Chemia, as the black of the eye—ὥσπερ τὸ μέλαν τοῦ ὀφθαλμοῦ χημία καλοῦσιν. Now the country which the Egyptians called *Chemi,* or *Chame,* according to their language, would be termed *Chom,* or *Cham,* by the Hebrews according to theirs. It would be difficult to account for the name given to the son of Noach, unless we suppose him to have received it from the country of which he is thought to have taken possession, and to which he himself may have given the appellation of *Cham,* or *Chom,* from the appearance of the soil. This appearance of the soil probably induced the

Greeks to call Egypt *Melambolos*, *Black-glebe*. (Steph. Byzant.) Upon the whole therefore I conclude that Egypt was originally named Cham, and that the Patriarch received this appellation because it was that of the region in which he had fixed his residence.

According to Eusebius (Chronic. L. 2.) Egypt was called *Aeria* before the reign of Ægyptus, who gave his own name to the country. The same statement is made by Georgius Syncellus. If we believe Stephanus Byzantius, Egypt received the name of *Aeria*, (which signifies aerial,) because the air was dark. The scholiast of Apollonius Rhodius (L. 1. v. 580.) says that Thessaly was called *Eeria*, (which likewise signifies aerial, but with reference to the obscurity of the early dawn,) on account of the black soil; and he adds, that Egypt was thus also named *Eeria*. It would be difficult to give even the appearance of plausibility to these etymologies. The soil of Egypt is black, but its atmosphere is remarkable for clearness; and travellers celebrate the beauty and brilliancy even of its nocturnal sky.

The etymology of the word *Egypt* has occupied the attention, and puzzled the ingenuity, of many learned writers. The most common opinion is, that Αἴγυπτος is composed of αἶα, (pro γαῖα) *terra*, and γυπτος, or rather κοπτος; and that consequently Egypt signifies *the land of Kopt*, or *the Koptic land*. But this etymology is untenable. Coptos was a city much too insignificant to give its name to all Egypt. The learned and ingenious M. Champollion seems to me to be mistaken, when he says, *Coptos, sous les Pharaons, devoit être l'entrepôt du commerce de la haute Égypte avec l'Arabie, et peut-être même avec l'Inde.* Coptos appears to have been a place of little note, until Ptolemy Philadelphus opened a road between that city and Berenice. The commerce of the East, before that period, had flowed into Egypt through another channel. (Strabo p. 781, & p. 815.) In the early times of Christianity, and after the city of Coptos had become the principal mart of the Upper Egypt, it was the resort of many persecuted Christians; and though it was destroyed by Diocletian, the tradition of this fact may have been the cause

why the Arabians gave the appellation of Copts to the Christians of Egypt, when that country became a province of the empire of the Caliphs. Pococke observes that the Mussulmans call the Christians Copts out of contempt. After all, it is very probable that the name of Copts, or Kobths, is nothing else than a corruption of the Greek word *Αἰγύπτιοι*, and that the Arabians first designated by the name of Kobthi the Egyptians in general, and afterwards the Christians of Egypt in particular. The natives of Egypt were not known by the name of Copts until the time of Amrou. Under these circumstances I cannot suppose the ancient Greeks to have called the country *Αἴγυπτος*, as signifying the land of Coptos. It may be questioned if the Greeks had any distinct notions of the geography of the Upper Egypt before the time of Psammeticus, if they had even then. Homer, according to Strabo, (p. 40.) seems to have considered the Thebais as forming a part of Ethiopia. How then can it be supposed that the early Greeks named all Egypt from an obscure town in the Thebais? Besides, it was the Nile

which was first called Ægyptus. What then becomes of the etymology which would make Ægyptus signify the land of Coptos?

The Arabians have a tradition that the name of Copt, or Kobth, is derived from Kobth the grandson of Mitsrim. This Kobth had, it seems, two brothers, with whom he contended for the sovereignty of the kingdom; and proving victorious in the contest, gave his name to the country. If indeed we believe Geraldinus, we must suppose Coptos to have been the capital of Egypt, while Thebes ranked only as a secondary city. The Arabians probably tell this story of Kobth on no better authority than that of tradition, which may have preserved some traces of the account given by Manetho of the contest between Sethos, or Sethosis, called Ægyptus by the Greeks; and his brother Armais, whom the same Greeks have made famous under the name of Danaus. It may then be suspected, that *Kobth* is only a corruption for Ægyptus, and that the Arabs, mingling the stories told by the Greeks with the traditions of the East, have changed the name of Ægyptus

into Kobth, and have represented him as the son of Baidher, the son of Mesr, the Mitsrim of Scripture. But the Arabian fable, like the Greek, is destitute of all verisimilitude. It is clear, from the passage cited by Josephus (Contra Apion, L. 1.) from Manetho, that Sethosis was the original name of the monarch whom the Greeks called Ægyptus. M. Champollion is indeed mistaken in saying that Ægyptus and Danaus *paroissent être des noms Grecs plutôt que des noms Egyptiens. C'est ce que Manethon nous fait entendre en quelque sorte, lorsqu'il dit qu'Armais et Sethosis sont ceux que les Grecs appellèrent Danaus et Ægyptus.* Manetho does not say that the Greeks called these brothers Danaus and Ægyptus—he called them so himself. But Sethosis and Armais, if we believe Eusebius, were contemporary with Moses. (Euseb. Chronic. L. 2.) Sethosis therefore could not be the grandson of Mitsrim. Now since chronology thus separates the Ægyptus of the Greek, from the Kobth of the Arabian historians, what remains to be believed of the stories told by the two parties? Was Egypt first named from

Kobth, and then from Ægyptus? How happens it, that the Egyptians themselves never denominated their country by the names of these two heroes of Greek and Arabian romance? Is it not strange that the sacred writers observe a profound silence on this subject? They speak of the land of Cham, and more frequently of the land of Mitsrim; but they say nothing either of the land of Ægyptus, or of the land of Kobth.

Ægyptus was a name which the Greeks gave first to the Nile, and afterwards to the country through which it flows. Homer never gives another denomination to the Nile than Αἴγυπτος; and Hesychius distinctly says, that this was the name of the river, and that the country was only so called in later times. The Greeks probably corrupted one of the Egyptian names of the Nile into Αἴγυπτος, and then applied it to the country. Sethosis may have assumed the original name as his own; and thus have also been called Αἴγυπτος by the Greeks. If I be right in the etymology which I am about to propose, it will no longer appear extraordinary that a proud

and ambitious Prince, like Sethosis, should have assumed a name which must have been considered as divine by the Egyptians, and which had already been given to the river, as being under the protection of the Good and Guardian Genius.

According to Jablonski, the Good Genius of Egypt was called in the language of that country *Ich*, or *Ikh-nouphi*, from ⲓϧ *ikh*, *dæmon*, and ⲛⲟⲩϥⲓ, *nouphi*, *bonus*. Such is the interpretation which this learned writer gives of the name, which the Greeks wrote Κνηφ, *Kneph*, and Κνουφις, *Knouphis*. This interpretation is ingenious; but I rather think that the Egyptians wrote the name ⲓϧ-ⲛϥⲓ, *ikh-nphi*, *dæmon custos*. The verb ϥⲓ, *phi*, signifies *custodire*, and prefixed by the *n*, the nominal sign, becomes a noun signifying *custos*.

Jablonski contends that *Phtha*, whose name he erroneously writes *Phthas*, was the same with *Kneph*. Strictly speaking there was a distinction between these deities; *Phtha*, (whose name ought to be rather written *Ptah*,) being the material *demiourgos*, while the nature of *Kneph* was en-

tirely spiritual: but it may be easily believed, that this distinction was not always attentively observed, that *Kneph* and *Ptah* were often considered as the same, and that both were denominated the Good Genius by the Egyptians, or perhaps rather the Guardian Genius.

Now the Canobic branch of the Nile, which appears to have been the main stream, and which was designated as ὁ μέγας ποταμὸς, the great river, by Ptolemy, was also called the *Agathos daïmon*, the Good *Genius*. (Ptolem. Geograph. L. 4. c. 5.) It follows, that the Nile bore a name in Egyptian, which the Greeks rendered by *Agathos daimon*. The question is, whether this name were not *ikh-nphi*, and not *ikh-nouphi*, and whether it should not consequently have been translated *dæmon custos?* From a passage in Cicero (De Nat. Deor. L. 3.) I think it clear, that the Egyptian name signified the Guardian Genius, and not the Good Genius; that *Ptah* was considered, in this instance at least, as the same with *Kneph*; and that if the Nile were ever named from the Guardian Genius, it was from *Ptah*. *Secundus Vulcanus*, says Cicero, *in Nilo*

natus, Pthas (lege *Ptah*) *ut Ægyptii appellant, quem CUSTODEM esse volunt.*

It follows from this statement, that the *ikh-nphi*, the *dæmon custos*, was likewise the *ikh-Ptah*, the *dæmon Ptah*.

We are always to remember, that *Ægyptus* was the name of the river long before it became that of the country. *Αἴγυπτος, ὁ Νεῖλος, ὁ ποταμός. Ἀφ' οὗ καὶ ἡ χώρη ὑπὸ τῶν νεωτέρων Αἴγυπτος ἐκλήσθη. Hesych.*

When then the Egyptians personified their river, and it is well attested that they adored the God Nilus, they named this God the Guardian Genius, who was no other than the God *Ptah*; and it seems clearly to follow, that they who denominated the Nile *ikh-nphi*, the Guardian Genius, would also denominate that sacred stream *ikh Ptah*, the Genius *Ptah*.

But the Greeks, who in the early periods of history visited Egypt, and who generally entered that country by the Canobic branch of the Nile, would consequently hear it called by these names; and as they understood the pronunciation to be *ikh nouphi*, literally *agathos daimon*, they would

naturally make enquiries concerning this Good Genius. They would be told, that he was the same, with *ikh Ptah*. The Greeks would articulate this name with difficulty; since they evidently changed either *ikh-nouphi*, or *ikh-nphi*, into *Knouphis* and *Kneph*. From further enquiries they would learn, that a vulture was one of the principal symbols of *ikh-Ptah*. (See Horapollo p. 24.) A vulture was named *nosher* in Egyptian. They would put this into Greek *gups*, or *aigupios*. The Greek mariners would soon confound the names of the Genius, of the river, and of the symbol of the God. They would remember that a vulture was the symbol of the deity, from whom ὁ μέγας ποταμὸς, the great river, was denominated; and they might recollect the name of ΠΤΑΧ *Ptah*, though they would, and indeed could, not have distinctly articulated a word which terminates with an aspirate. Thus the *Ikh-Ptah*, *dæmon Ptah*, of the Egyptians, may have been corrupted into *Aigupios*, *Gups-Pta*, perhaps *Aigups-Ptas*, and finally into *Aiguptos*.

That the Greeks corrupted *Ikh-Ptah* into Aiguptos seems sufficiently probable. From a

passage in Diodorus (L. 1.) we may infer, that Sethosis, who took the name of *Aiguptos*, considered *Ptah* as his patron God. The Greeks, it is to be observed, (see Stephanus Byzantius,) gave the name of *Hephaistia* to Egypt. Whence came this name, if not from an Egyptian appellation, according to which Egypt was so called from *Ptah?* Cicero, as we have seen, says that *Ptah* was born in the Nile; and the same deity, according to M. Champollion, was symbolised by a Nilometer.

One of the most ancient names of the Nile was *Iaro*, which occurs continually in Coptic. The Hebrews in speaking of the same river generally used the word יאר, *Iar*, which the Masorites point *Ieor*. R. Solomon says that יארים, *iarim*, are water courses, or canals, made by the hands of men. Thus in Ezekiel we find the words, "my river is my own," (לי יארי, literally, to me is my *iar*;) "and I have made it for myself." Jablonski, without naming R. Solomon, objects to his explanation; but though I do not agree with the Jewish commentator to the full extent of his remark, I cannot help thinking the Polish

critic unfortunate in his objection. Jablonski refers to Amos, (viii. 8.) who, he thinks, understands by יאר מצרים, *iar Mitsrim*, the whole stream of the Nile. The passage seems to me to be inaccurately rendered in the English version. "Shall not the land tremble for this, and every one mourn that dwelleth therein? And it shall rise up wholly as a flood; and it shall be cast out and drowned, as by the flood of Egypt." The original Hebrew is as follows: העל זאת לא תרגז הארץ ואבל כול—יושב בה ועלתה כאר כלה ונגרשה ונשקה כיאר מצרים. I cannot consent to translate the last words in this sentence כיאר מצרים "as *by* the flood of Egypt." There is no authority in the text for the introduction of the preposition. At the same time, from the way in which the rest of the passage is rendered, this preposition is necessary to the sense in the version. It is probable, therefore, that the translators have not given the proper meaning of the verbs גרש and שקה in the passage before us; and that though we find these verbs in *niphal*, we must translate them here as intransitives. I translate the passage: "For this shall not the land trem-

ble, and every one mourn that dwells in it? And it shall rise up like a whole river, and shall boil up,[1] and exundate, like a river of Egypt." Now the words "like a river of Egypt," may refer to any of the branches of the Nile, and may be very well understood of one of those canals, which conveyed large streams of water through Egypt at the period of the inundation.

Jablonski contends that *Iaro* is originally Egyptian; and that the sacred writers never employ the word *iar*, but with reference to the Nile. But this is clearly not the case where Isaiah uses יאורים at c. xxxiii. v. 21. *Quia solummodo ibi* (*in Zion*) *magnificus est Dominus noster: locus fluviorum rivi latissimi et patentes: non transibit per eum navis remigum, neque trieris magna transgredietur eum.* There is no allusion here either to Egypt or to the Nile.

It was formerly too much the fault of philologists to derive Egyptian from Hebrew words; but more modern writers appear to have run into the other extreme, and to insist, where Hebrew

[1] See Buxtorf at the word גרש, Montaldi's edition.

and Coptic words are nearly the same in sound and in sense, that the Hebrews borrowed them from the Egyptians. In the present instance I cannot trace *Iaro* to any Coptic root; whereas the Hebrew יאר *iar*, seems to have sprung from the same source as אור *aor*. (See Parkhurst in voce אר.) In Hebrew the word אר, or אור, signifies *light*, but properly as a fluid—the light flowing from the Sun. Hence it is used in Job to signify the solar light. But this word, according to the opinion of various critics, generally signifies what is fluid, and though commonly understood of the fluid of light, or fire, yet occasionally means water. As for example the rain coming from the clouds. Thus some have understood אורו, at Job xxxvii, 11. to signify *his shower*. (See Buxtorf in voce אור, and Munster's note on the passage in Job.) The Egyptians worshipped the Sun under the name of Osiris; and Plutarch tells us, that they called the Nile a fluxion of Osiris (*Ὀσίριδος ἀπορρόην*). Is not this almost telling us the meaning of *Iar*, which seems originally to have signified a fluxion, or flowing of light? I cannot help thinking, there-

fore, that the Egyptians borrowed their word *Iaro* from the Hebrew. It was probably from this name of the river, that the Greeks called Egypt *Aeria* and *Eeria*, of which I have spoken above. I am aware that La Croze has said, that ΩΗΡ is an original Egyptian word. It matters little whether, or not, he found this word in Coptic manuscripts. The Copts, who have so many Greek words in their mingled dialect, may have also borrowed this one from the Greek language. But I cannot help thinking, that *iar* originally signified flowing light, and after having been given as a name, or title, to the Nile, came finally to signify flowing water—a river.

Jablonski has collected testimonies from various ancient authors, (Dionysius Periegetes v. 22. Festus Avienus v. 334. Priscian v. 210. Pliny L. v. c. 9. Solinus c. 32. Stephanus Byzantius De Urbibus,) from which it appears, that the Nile was called *Siris* by the Ethiopians. I perfectly agree with Jablonski, in thinking that this name, given to the Nile by the Ethiopians, by no means authorises us to conclude, that it was the same with *Sihor*, or *Sichor*, and that by this last name the sacred writers understood the

Nile. (Joshua xiii. 3. 1 Chronicles xiii. 5. Isaiah xxiii. 3.) I consequently also differ from Vossius, who holds the *Sihor* to have been the Pelusiac branch of the Nile. It is true that the Nile was called black, and שחור *Sihor* signifies black; but other rivers than the Nile may have brought down black earth from the mountains, and have deposited black mud in the valleys. It is said, at Joshua xiii. 3. "From Sihor which is before Egypt." And at 1 Chronicles xiii. 5. "So David gathered all Israel together from Shihor of Egypt even unto the entering of Hemath." The Rabbin have understood the Nile to be meant by Sihor; but the Israelites certainly never possessed the right bank of the Pelusiac branch of the Nile. It is said at Genesis xv. 18. "Unto thy seed have I given this land from the river of Egypt unto the great river, the river Euphrates." Now if by the river of Egypt had been meant the Nile, the Euphrates, as contrasted with it, would not have been called the *great* river. We read in Isaiah, "The Lord shall beat off from the channel of the river unto the stream of Egypt." In the original we find נחל מצרים, *nachal Mitsrim*, *the torrent of Egypt*. Would this have been the

expression, if the Pelusiac branch of the Nile had been understood? But the נהר מצרים, *nahar Mitsraim*, river of Egypt, (which was contrasted with the נהר הגדול, *nahar hagadul*, the great river, the Euphrates;) the נחל מצרים, *nachal Mitsrim*; and the *Sihor*, were all one and the same stream. This stream, I conclude, could not have been the Pelusiac branch of the Nile, which could hardly have been described as a torrent, and which having been at least twice as large as the Euphrates, would not have been mentioned as the smaller of the two rivers, as must be inferred of that river, which is contrasted with the great river, the Euphrates. The torrent of Egypt, the Sihor, was probably that stream which falls into the sea near Rhinocolura.

Thus the names of Siris and Sihor had no connexion with each other. Jablonski thinks, that the Nile was called IAPO HШAPI, *Iaro anshari, fluvius junceus*, and shortly ШAPI, *shari, junceus*, and that the Greeks changed this word *shari* into Siris. The Egyptians appear to have denominated various water plants, such as the papyrus, the bulrush, the sea-weed, by the

name of *shari*, or *sari*; and Pliny (L. 13. c. 23.) was mistaken in limiting this name to one species of shrub, or plant, growing in the vicinity of the Nile. We likewise find in Arabic the word شري *shari*, which Golius understands to signify the plant called *colocynthis*; but it has probably the same extensive sense as in Coptic. Ludolf translates the Ethiopian word ሠዕር *sar* by *gramen*. But the etymology proposed by Jablonski is inadmissible. When the Copts speak, or write, of the Red sea, the ים סוף, *yam suph*, of the Hebrews, they always call it ⲫⲓⲟⲙ ⲏⲯⲁⲣⲓ, *phiom anshari*, *mare algosum*; and never employ an abbreviation. How then shall we suppose, that they wrote *shari* for *phiaro anshari*, *juncus* for *fluvius juncosus*? Besides, Jablonski should have referred us to the Ethiopian and not to the Coptic, since it was only to the south of Syene that the river was known by the name of Siris.

Concerning the origin of this last denomination of the Nile there have been various opinions. Is Siris to be traced to the same source with Sirius and Osiris? Jablonski boldly pronounces Sirius to be Greek, and Siris to be

Ethiopian; and observes that the dog-star was never called Sirius by the Egyptians, but always Sothis. There can be no doubt indeed, that grammarians have traced σειρ, *sol*, and σειριος, the name of the dog-star, to σειρω, *exsicco*. The author of the *Etymologicon Magnum* tells us that some call all the stars σειρια. Thus the word Sirius would appear to be of Greek origin. But I much suspect σειρ, *sol*, to be the root whence have come σειρω, σειραινω, and σειριος; and the Greeks probably obtained this word σειρ from the Orientalists. In India the solar orb was personified under the name of Suraya. The old Persian word for the sun, as Hyde observes, and as Meninski admits, was شر *shir*, or سر *sir*. Jablonski denies that the Egyptians ever called the dog-star Sirius; but Diodorus Siculus says, τῶν δὲ παρ' Ἕλλησι παλαιῶν μυθολόγων τινὲς τὸν Ὄσιριν Διόνυσον ἐπονομάζουσι, καὶ Σείριον παρωνύμως—*some of the ancient Greek mythologists surname Osiris Dionysus, and Sirius, as a derivative denomination.* If these ancient mythologists were right, and if Sirius may be traced to Osiris, the former of these two names cannot be re-

ferred to a Greek origin. Wesseling has the following note on the passage cited from Diodorus — *De Sirio, quod addunt, natum arbitror ex solis hoc titulo: quem Archilochus Σείριον, teste Hesychio, appellavit. Schol. Oppian.* III. *Hal.* 48. *Σείριος οὐ μόνον ὁ ἥλιος, ἀλλὰ καὶ ὁ ἀστὴρ τοῦ κυνός. Solem autem hi theologi eundem ac Osirim censebant.* It is true that the Egyptians generally denominated the dog-star *Sothis;* but it would appear from the citations which I have just made, that they had also known it by the name of *Sir*, or *Siri.*

The Arabians give the name of شعري both to Sirius and to the star α in *Canis Minor;* and this word شعري, which we should at first sight pronounce *shari*, the Arabians point and pronounce *shira.* Now I have very little doubt that الشعري *al shira* is a corruption for السعري *al sari*, or السعير *al seir.* We know that the ancient Arabians adored the dog-star; (see Hyde on Uleg Beigh p. 53.) and it seems clear to me that this star was represented by the idol called *Seir.* (See Golius under the root سعر.) The name *al shira* offers no appropriate meaning; but *al sair* may

be rendered *the inflamer*, or, as the Romans called Sirius, *æstifer*.

The Gaetz, the learned language of the Ethiopians, may be called a dialect of the Arabic. But in Arabic سعر *saer*, signifies to burn, to inflame, and also to cause grief. In Ludolf's imperfect lexicon the word ⲤⲀⲈ *saer* is rendered *sustulit, delevit, destruxit, &c.;* but I can have no doubt it also signified to burn, to inflame, as in Arabic. From the same Arabic root the Egyptians probably obtained the word ϭⲈⲈⲢⲈ, *seere, accendere, urere.* The question to be considered is, whether the names of Osiris, Sirius, and Siris, were likely to be related to any of these words.

Diodorus Siculus, Plutarch, and Horapollo, have totally failed in their attempts to explain the name of Osiris, which they understood to signify πολυόφθαλμος. It is true that ⲰⲰ, *osh*, signifies multus in Egyptian; but *oculus* is not the signification of IPI, *iri*. Besides, πολυόφθαλμος, (literally *much-eye,*) is an expression not very intelligible, and not very likely to occur in any language. Plutarch gives another explanation,

by which the name of Osiris would be equivalent to ἀγαθοποιὸς, *beneficus*. The word 𓅱𓊪, *osh*, signifies *great* as well as *much*, and IPI means *action;* so that with a little straining, we might understand *osh-iri* to signify *magnificus*. It is better, however, to look for an etymology where there needs to be no straining at all. Iamblichus probably followed Plutarch, when he said, ἀγαθῶν δὲ ποιητικὸς ων, Ὄσιρις κέκληται, *being the doer of good things, he is called Osiris;* but when the words *osh* and *iri* are put together, they can never signify any thing else than great or much action. I am inclined to give a very different account of the origin of the name of Osiris.

If the ancient Greek mythologists mentioned by Diodorus were right; and if by Sirius both the Sun and the dog-star were originally understood, I should think that the Ethiopians and the Egyptians had obtained the word *seir*, or *sari*, or *sira*, from the Arabians. In Egypt the appellation of *Soth*, or *Seth*, was more commonly given to the dog-star than *sira;* but the Sun, called in the vulgar dialect *re*, or with the definite article *phre*, was personified and adored

under the name of *osh-sira*, or *osh-seir*, which signified *magnus ignis*, or *magnus sol*. In admitting this explanation many difficulties are solved. The Greeks learned to call the dog-star Sirius from the Arabians and Ethiopians, who denominated it سعري *sira*, or *siri*; and they named the sun *seir* from the Persian *sir*, *sol*, and the Arabic *seir*, *ignis*. Plutarch tells us that the Nile was a fluxion of Osiris; nay, that the Nile was Osiris. Accordingly the Ethiopians called the river سعري *siri*, *sira*, or *sari*, as you choose to pronounce it. Thus Osiris, Sirius, and Siris, are only Greek corruptions of words which had their origin in the Oriental languages.

But it may be said that the Arabians called the dog-star *sira* from its Greek name. We must then suppose, that they borrowed the root سعر and all its derivatives, from the Greek. It is to be remarked, that the Arabians call not only the dog-star, but the great star in *Canis Minor*, by the name of شعري and these two stars they denominate in the dual الشعريان *al-shirayan*, which I would write السعريان, *al sariyan*. These two stars rise together cosmically in the

northern parts of Arabia, about 30 degrees N. L.; and the heliacal rising of the dog-star there precedes that of the star α in *Canis Minor* by two or three days. In the latitudes of Greece and Italy, on the contrary, *Canis Minor* rises before *Canis Major*. I think it unnecessary to my purpose to repeat the distinctions which the Arabians make in denominating each of the two great stars, which they call the *Sirayan*, as rising heliacally at the hottest season of the year; but I can have no doubt that they named each of them سعري long before they could have known that the Greeks had denominated one of them Sirius.

Neither can I doubt that the Ethiopians borrowed the word سعري from the Arabians, and applied it to the dog-star; and as the Nile was represented by the mythologists to be a fluxion of Osiris, an emanation of the sun, a flowing of the solar light, they likewise gave the same appellation to the river, since the Sun, as well as the dog-star, was called Sirius, as is attested by the Greek writer whom I have cited above. The modern Arabians, as we have seen, deno-

minate the dog-star شعرى, which we may pronounce *shari*, or *shira*, as we choose to place our *fathas* and our *kesras;* but for the reasons which I have already given I believe شعرى to be a corruption for سعرى.

That the ancient Ethiopians called the dog-star and the Nile by the same name seems to be confirmed by recent testimonies; since the great river which flows into the lake *Tsaad*, and which is said to communicate with the Nile, if it be not the same stream, is called the *Shari*. When we consider that the heliacal rising of Sirius takes place nearly about the time when the inundation is approaching to its greatest height, we cannot wonder at the connexion which superstition has probably always supposed between the star and the river. As the flood became greatest, when Sirius emerged from the solar rays, the mythologists would have it that the Nile proceeded from the sun, and was a fluxion of Osiris, or rather Osiris himself descended from heaven—*Ὀσιρίς ἐστιν ὁ Νεῖλος ὃν ἐξ οὐρανοῦ καταφέρεσθαι οἴονται.*

According to Diodorus Siculus, (L. 1. c. 19.) the most ancient name of the Nile was Okeanes,

or rather Okeames, as I fully agree with M. Champollion the name ought to be read. Now this name was no doubt originally pronounced *Chame*, or *Cheme*, or *Kame*, which signified black, and was the same which was given to the country itself. In Egyptian the indefinite article was sometimes prefixed to nouns, and became incorporated with words, without its use being apparent. (Woide Gram. Ægypt. p. 17.) Hence the name *Ou-Kame*, or Ou-Cheme, which the Greeks pronounced *Okeames*.

Diodorus tells us that the Nile was afterwards called *Aetos* (*Aquila*). This is clearly a translation of the Egyptian word for an eagle, ⲁϧⲟⲩ, *achom*, or ⲁϧⲉⲩ, *achem*. I very much suspect this name to be a corruption. The Greeks, who visited Egypt, generally employed as interpreters the descendants of those Ionians who had settled there in the time of Psammeticus. These interpreters probably led strangers into many errors. From all that I have heard of the Nile, I should never suppose, that the rapidity of its current could be compared with the swift flight of an eagle. The interpreters being asked

the meaning of *Ou-cheme*, which they seem to have pronounced *Okeame*, probably made it out to be the same with *achem*, in Greek *aetos*. The Greek travellers went away satisfied; and the moderns read with composure, that the Egyptians called their river *Aetos*, the Greek word for an eagle, διὰ τὸ γενόμενον ἔκρηγμα, (*ob eruptionem*,) as Diodorus says.

We are now to consider the origin of the word Nile. If we believe Tzetzes (ad Lycophron. v. 119.) this name was recent; and Diodorus says, that it was the last which the river had received, and which was given to it during the reign of Nileus. This Nileus, or Nilus, according to the catalogue of Eratosthenes, was the same with Phruron, or Phrouron. Dicæarchus, cited by the scholiast of Apollonius Rhodius, (L. 4. v. 272.) makes mention of Nilus. There can be no question then that the Greeks so called a king of Egypt; but it appears to me very doubtful, whether the Egyptians themselves ever gave such a denomination to any of their monarchs. Nilus is not mentioned by Herodotus; and if this prince really gave his name to

the river, we may wonder how so curious a fact escaped the knowledge and the notice of the historian of Halicarnassus. Neither is the name of Nilus to be found in the catalogue of Manetho.

According to Dicæarchus, Nilus flourished 436 years before the first Olympiad. If this writer meant to speak of the Olympiads of Corœbus, we must fix the date of the reign of Nilus for the year 1190 before Christ. How happens it then, that Hesiod is the first author who mentions the Nile, and that Homer always calls it Ægyptus? If we believe Herodotus, Homer was born about 400 years before himself; that is, about the year 884 before Christ. According to the Arundel marbles, this prince of poets was born 63 years sooner. But be this as it may, the reign of Nilus must have preceded the birth of Homer by considerably more than two centuries; and the river during that period must have borne the name of the monarch. How then does it happen that Homer never mentions this name? If Dicæarchus meant to date the reign of Nilus from the year 436 before the first Olympiad of Iphitus, we must fix the

beginning of this monarch's reign for the year 1320 before Christ; but in throwing the date farther back, it becomes still more extraordinary that Homer should have failed to give to the Nile a name which it must have borne for so long a period before his time.

Syncellus fixes the commencement of the reign of Nilus for the year of the world 3908; but as the same writer fixes the death of Christ for the year of the world 5531, Nilus began to reign 1593 years before our æra, allowing 33 years for the life of Christ. Thus Dicæarchus and Syncellus differ very essentially concerning the period when Nilus lived. We are told by Syncellus, that Eratosthenes obtained the names contained in his catalogue at Diospolis, where he translated them out of the sacred characters, and out of the Egyptian into the Greek language. Dicæarchus, who flourished rather more than a century before Eratosthenes, may have had his information from the same source; but the statement made by Eratosthenes induces me to question whether such a king as Nilus ever existed. His words are, Θηβαίων λζ' ἐβασί-

λευσεν Φρουρῶν, ἤτοι Νεῖλος, *Phrouron, who was the same as Neilos, was the 37th who reigned over the inhabitants of the Thebais.* Now of this king Phrouron no other author, as far as I am aware, has made mention; and it is to be remembered, that Herodotus and Manetho are equally silent concerning king Nilus. Jablonski, after citing the words of Eratosthenes, adds, *constans autem est catalogi illius mos, ut primo ponatur regis cujusque nomen Ægyptiacum, et deinde ejus interpretatio Græca addatur. Itaque Phrouron Ægyptiis idem significat quod Græcis Nilus.* Jablonski then undertakes to show, how *Phrouron* might be a name of the Nile; but in this undertaking he seems to me to have so totally failed, that I think it unnecessary to repeat his statement in order to controvert it. If Eratosthenes really examined and read the Egyptian archives, he must probably have misunderstood them. The 36th king of the Upper Egypt is not designated by name in the catalogue. The 37th may have been designated as *king of the river.* The Greek stranger would read this designation in Egyptian ΦΟΥΡΟ ΝΙΑΡΟ, *Phouro niaro.* He might

have mistaken the first of these sounds for the proper name of the prince, while in the second he recognised the word by which the Egyptians indicated the river, which he called *Neilos*. Then disjoining the prefix *n*, the sign of the genitive case from *iaro*, and adding it to *Phouro*, he understood the words to be *Phouron Iaro;* of which he made two proper names, the last of which he conceived to be equivalent to *Neilos;* and these names he believed to have belonged to the 37th king of the Thebais. The copyists probably changed *Phouron* into *Phrouron*. This, I suspect, is the real origin of the *Neilos* of Dicæarchus, and of the *Φρουρῶν ἤτοι Νεῖλος* of Eratosthenes.

Some learned men have supposed *Nilus* to be derived from the Hebrew נחל, *nachal*, a torrent; but this etymology has been completely set aside by Jablonski. That, however, which he himself proposes appears to me to be fully as objectionable. He will have it, that the Egyptians called their river ΗΘΙ ΘΛΘΙ, *Nei alei*, which he says signifies, *certo et determinato tempore adscendens*. These words signify, the first, *a time*, or if you will, *a fixed time*, and the second, *to*

ascend. How could Jablonski fancy, that on account of the annual rise of the river, the Egyptians called it by so singular a name, as *a fixed time to ascend?* All that can be said for this etymology is, that there really is some resemblance in sound between Nile and *nei alei.*

Hesiod, as I before observed, calls the river *Neilos;* and I cannot help thinking, with the old grammarian, that this circumstance proves Hesiod to have flourished after Homer. (Theog. v. 337.) It indeed appears that the Egyptians themselves never gave the name of Nile to the river. In the most ancient Coptic writings it is always called *Iaro.* It would seem from the testimonies already adduced, that it was called Nilus, immediately after it ceased to be named Ægyptus. This statement is made both by Diodorus and by Tzetzes. Homer calls it Ægyptus, and Hesiod Nilus. May it not then be concluded, that it was between the time of Homer and that of Hesiod that the Greeks, at least, introduced this change? And the reason was obvious, since it became necessary to distinguish between the country and the river, both

of which in the days of Homer, (at least among the Greeks,) bore the same name. But from whom did the Greeks learn to call the river by the name of Nile? I can find no traces of this name having been adopted by the Egyptians themselves. May it not then have been partially so named by strangers from the east; by merchants and travellers who came from Arabia, or even from India, into Egypt? According to Kircher the Nile (I believe only in a part of the Upper Egypt,) was called ⲦⲀⲨⲎⲒⲢⲒ, *t-ameiri*, that is, *the cœrulean*, by the Copts. Now in Persian and in Arabic نيل *nil* signifies blue; and in Sanscrit, according to Sir W. Jones, *nila* bears the same meaning. A large river which falls into the Indus, is called *Nil-ab*, blue water; and this is pure Persian. The name of the Nile then appears to have been introduced into Egypt by strangers from the east. The Greeks easily adopted a name which they wrote and pronounced according to their own manner, and which perhaps pleased better their difficult ears, than *Iaro*, or *Ph-Iaro*, the appellation always most generally given by the Egyptians to their much celebrated and many-named river.

CHAPTER III.

Enquiry whether any reminiscences of the Deluge can be traced in the mythology, or in the monuments of the ancient Egyptians.

WE have seen in the preceding chapter, that the most ancient names of Egypt were Cham and Mitsrim; and we may thence conclude, that the patriarchs who bore the same names had fixed their residence in that country. The valley of the Nile may have been known to the antediluvians for its beauty and fertility; and Cham, branded with paternal malediction, may have willingly retired to a region, which Nature, while she lavished on it all her riches, seemed to have shut out from the rest of the world. It is therefore among the Egyptian descendants of this patriarch that we most naturally expect to find reminiscences of that mighty deluge, which

overwhelmed our globe, and which destroyed the whole human race, with the exception of Noach and his family. We know not where Shem or Japhet chose their residence, and fixed their abode; but we may reasonably suppose their brother to have inhabited the country which was called the land of Cham. Did this witness then of the awful event of the deluge leave no records of its existence? Did his son Mitsrim leave behind him no monuments, which might tell to posterity the terrible history, of which he must so often have heard the narrative? Surely of all the nations of the Pagan world, the Egyptian was that which might have been expected to preserve the most exact accounts of the universal deluge, an event at once so astonishing and so disastrous.

But, however reasonable these expectations may appear, enquiry will soon convince us that they must be in a great degree disappointed. The descendants of Cham soon adopted all the errors of Sabaism; and it was by no means the interest of the supporters of that superstition to allow the stream of truth to flow pure and un-

tainted through the pages of history. The doctrines of the Tsabeans were plausible and even fascinating. Their system was formed to unite the interests of the priesthood with those of the monarch, and to give stability both to the altar and to the throne. They represented the universe as governed by an innumerable host of spiritual agents of different ranks, who all acted under the guidance and by the authority of one supreme and infinite being, who was the primary cause of all things, and who is the eternal ruler of the world. They considered Nature as nothing else than as the manifestation of the Deity in his works; and all the powers of Nature they held to be produced by the direct agency of beings that emanate from the Divine essence. But this theory, which supposes the universe to be governed by a being, who can only be defined by abstractions; as infinite, immaterial, invisible, and immortal; and who guides Nature in all her ways by the intervention of spiritual effluences, and divine emanations, as difficult to be comprehended by human understanding, as the source whence they spring;

this theory was not easily intelligible to the people, and was not perhaps, as it stood alone, entirely suited to the views of their rulers. Symbols were soon sought and found, which, it was thought, might help to explain to the vulgar and illiterate the abstruse language, and the metaphysical doctrines of the wise and the learned. The Sun, the most glorious object which the material world presents to our admiration; as the source of heat and light; and as the apparent cause of many of the blessings which this earth enjoys; was considered as the visible type of the invisible God. The Moon became the symbol of the passive principle; and represented material Nature acted upon by the Divine Mind. Matter being considered as inert in itself, and in its original state as void of form and of motion, was supposed to have received its primary as well as its present impulses, with all its qualities, forms and organizations, from energies communicated to it by the spiritual *demiourgos*. This doctrine was illustrated by a reference to the lunar orb, which shines only by the light which it receives from the Sun. The five great Planets

were selected to represent the principal and most brilliant of the etherial Spirits that stand in the presence of the Deity. The multitude of fixed Stars was compared to a mighty host; and according to their different magnitudes, degrees of rank were assigned to these celestial bodies, which were considered as the types of the immaterial agents, who in countless myriads perform the will and execute the mandates of the supreme Governor of the universe.

How far it can be consistent with pure theism to admit any material symbol of the Deity, it is not my intention to enquire; but there can be no doubt, when such a symbol is once recognised, that the people easily transfer their veneration from the being that is symbolised to the symbol itself. Thus in Egypt, and throughout Asia, where Tsabaism generally prevailed, the Sun, with the exception of one nation, was adored by mankind, while the existence of the God of nature was either misunderstood or forgotten. Neither did the evil terminate here. When the symbolical system was once introduced, it was difficult to fix its limits. As the Sun, the Planets,

and the Stars were supposed to represent the Deity and the spiritual hierarchy of heaven, symbols were chosen to designate the celestial bodies; and the reverence of the multitude became attached to these new symbols. Thus heliolatry, and the worship of the celestial hosts, were soon followed by idolatry; the truths of natural religion were either concealed under the veil of allegory, or altogether forgotten amidst the creations of fiction; and Superstition, fearless of interruption, incited by fraud on one side, and favoured by ignorance on the other, continued her work, until she had completed the monstrous fabric of the Heathen Pantheon.

There can be little doubt that the evils of this system were perceived by the better instructed classes of society; but the Kings and the Priests were attached to its existence, which had become intimately connected with their own. Among the similitudes which policy had invented, and which religion had sanctified, none could be more agreeable to monarchs, than that which compared the Princes of the earth with the King of heaven, and which represented them as the emblems of the supreme and spiritual

Governor of the universe. The celestial Court was imagined to resemble those of our nether world. The King was likened to the Sun, and the great men of the State were assimilated to the most brilliant of the Stars; and thus while the people looked up with reverence to their masters upon earth, as images of their rulers in heaven, they became the willing slaves of a despotism, which seemed to be founded on the authority of the Gods themselves. The Priests alone, the directors of all this machinery, could interfere between the monarch and his subjects; and in turning the fears of both to their own account, could occasionally, and indeed did frequently, guide the vessel of the State, without paying much deference to the wishes either of the sovereign or of the people.

In no country were the abuses of the symbolical system carried further than in Egypt. The people fell into the grossest errors of idolatry; and it was but too much the interest of those by whom they were governed to keep them in ignorance. Under these circumstances we cannot wonder, that all the avenues to knowledge were

made difficult of access; that the cultivation of science was reserved for the Priests alone; and that the truths of history were perverted to serve the purposes of those crafty impostors. The records of early times were amplified by additions; altered by fables; or explained away into allegories. The simple facts which ancient monuments attested, or which tradition preserved, were employed as the foundations on which fiction built a thousand fanciful superstructures. The memory of truths, which had been originally kept separate from fables, was gradually obliterated. Innovation had rushed forwards, like a mighty flood, and had swept away the landmarks of chronology and of history; and Mythology, like those magicians which she herself has since created, had changed the names, the forms, and the appearances of things.

The history of the deluge was probably one, which it suited not the views of the Egyptian mythologists to relate in its native simplicity. Perhaps they knew, what rabbinical tradition asserts to this day, that the Tsabaism which they professed, was the crime which brought down the ven-

geance of Heaven on the antediluvian world. Perhaps, after the lapse of a few ages, and while they themselves were busy in imagining fables, they may have considered the account of the deluge as itself a fiction, and have rejected it as interfering with the remote antiquity which they wished to ascribe to their nation. In some examples, however, I think, we can find strong presumptive proofs, that they were not unacquainted with diluvian history. It is true, that we must look at some of those proofs through the veil of allegory, which mythology has thrown over them; and that we must search for others among the mysterious fables and mouldering monuments of Egyptian superstition.

I shall now proceed to consider the evidence, which has been, or which may be, produced upon this subject, as far as my own reading and observation enable me to lay it before the reader, and in the short space to which I must necessarily confine myself.

It is apparent from what has been already stated, that the Tsabaists began their work by building up fables upon facts, and by blending

the truths of history with the fictions of mythology. In process of time, however, the facts and the truths were so altered and perverted, so strangely disfigured, and so generally misplaced, as to be no longer distinguishable from the mass of fables with which they were surrounded. The constructors of fictions were careless whence they took their materials, or in what order they placed them, provided that the effect was such as suited their own views. Hence the parts, that were connected in history, became disjointed and separated in mythology; the character and actions of one individual were transferred to another; the events of several ages were crowded into the history of one; or those of one age were expanded through the history of many. Thus the modern reader is occasionally put in mind of real persons and of real events, while he peruses the accounts which the ancients have left us of the Gods of Paganism. I cannot indeed agree with Vossius and with some other writers, who, I think, have drawn the parallel too close between mythological traditions and personages, and things

that have happened, and men that have been. But while I should hesitate to say that in Saturn, Ammon, and Osiris, we can recognise the distorted portraits of Noach, Cham, and Mitsrim; I am not afraid to maintain, that the fables fabricated concerning the Gods were originally and partly founded on some obscure traditions concerning the Patriarchs. It was the object, however, of the Tsabaists to mould all these traditions into the forms which were suited to their own purposes. They sought to establish the worship of the Sun, and they endeavoured to associate with the adoration of that luminary every action that fame had rendered celebrated, and every name that antiquity had rendered venerable.

In considering the ancient mythology of the Egyptians as connected with diluvian history, one of the first things which we remark is the planting of the vine by Osiris. This circumstance recals to our recollection what we are told of Noach in the Book of Genesis. *Cœpitque Noë vir agricola exercere terram, et plantavit vineam.* We might indeed be almost tempted to

think that the Latin poet had this passage in view, when he sang of Osiris—

Primus aratra manu solerti fecit Osiris,
Et teneram ferro sollicitavit humum.
Primus inexpertæ commisit semina terræ,
Pomaque non notis legit ab arboribus.
Hic docuit teneram palis adjungere vitem,
Et viridem dura cædere falce comam.

Jablonski has censured the Greeks and Romans for comparing Osiris to Dionysus and Bacchus. There can be no doubt that in many respects the Egyptian deity bore little resemblance to these last mentioned Gods; but I can by no means assent to the opinion of Jablonski in the following passage:—*Verum qui Osiridem vitis inventorem faciunt, non sane animadvertunt, quantum adversus religionem Ægyptiorum piaculum committant. Illa enim docebat atque inculcabat sedulo, vino inesse aliquid pestiferi, neque illud tam a Deo, quam a genio malo, Diis hominibus inimico, ortum duxisse. Docet id Plutarchus in loco memorabili de Is. et Osir. p.* 353. *Ait enim ante Psammetichi regis ætatem, Ægyptios neque bibisse, neque etiam Diis libasse vinum,* ὡς οὐ φίλιον Θεοῖς,

ἀλλ' ὡς αἷμα τῶν πολεμήσάντων ποτὲ τοῖς Θεοῖς, ἐξ ὧν οἵονται πεσόντων καὶ τῇ γῇ συμμιγέντων ἀμπέλους γενέσθαι—*tanquam Diis non gratum, sed sanguine eorum, qui aliquando bellum Diis intulissent, ex quorum in bello cadentium cadaveribus, terræ permixtis, putant vites ortas.* The authority of Plutarch, concerning the manners of the Egyptians before the time of Psammeticus, may be questioned. In all the countries of the east the juice of the grape has its friends and its foes; and Plutarch may have taken his account from some Egyptians who considered the vine rather as the gift of the Dæmon than of the Deity. But Jablonski ought to have known better. The Egyptians were in the habit of drinking wine ages before the time of Psammeticus. Did Jablonski forget the dream of Pharaoh's chief butler? Did he forget the repast of Joseph and his brethren? It may be certainly concluded, that nothing happened in Joseph's house contrary to the usages of the Egyptians; and yet we find that his brethren drank, and (as our version has it) *were merry with him.* Why, if Osiris had not been the first planter of the

vine, and the patron of wine, did Herodotus, Diodorus Siculus, and Plutarch himself, endeavour to identify him with Dionysus?

But it is chiefly in speaking of the death and sepulture of Osiris, and of the rites afterwards established, that some writers have thought that they could discover traces of diluvian history in Egyptian mythology. Upon some points I agree with these writers; but on others I must dissent from their opinions.

They contend that the ark, or chest, in which the body of Osiris was deposited and committed to the waters of the Nile, was emblematical of Noach's ark; and that Typhon, whom the Greeks represent as the symbol of the sea, was the emblem of that ocean which deluged the earth. The day when Osiris was thus placed in the chest, and thrown into the Nile, is said to have been the 17th of the month *Athyr*. The learned Mr. Faber thinks that this was the very day when Noach entered the Ark. This does not appear to me to be clear. Athyr, according to Orion the grammarian, was the third Egyptian month. Augustus established the fixed

year in Egypt about 8 years before our æra; and its *thoth*, or commencement, answered to the 29th of August. The Sun's longitude was then, according to the fixed zodiac, 6 s. 2 d., and consequently on the 17th of Athyr the longitude of that luminary was 8 s. 19 d. If we reckon back to the deluge by tropical years, we shall find that the Sun's longitude on the 17th of Athyr was about 10 s. according to the chronology of the LXX; and 9 s. 20 d. according to the chronology of the Vulgate. But Noach entered the ark on the 17th of the 2d month of the old Hebrew year, which commenced with the first new moon after the autumnal equinox. According to the LXX the deluge happened 3128 years before Christ. At the autumnal equinox for that year the Sun's longitude was about 8 s. 8 d. Thus, according to the LXX, Noach could not have entered the ark before the Sun had advanced 9 s. 25 d. If, according to the common chronology, the deluge happened 2348 years before Christ, the Sun's longitude at the autumnal equinox was then 7 s. 28 d., and consequently on the 17th of the 2d month

could not have been less than 8 s. 15 d. Thus neither according to the LXX, nor according to the Vulgate, could the 17th of the Egyptian month Athyr have agreed at the period of the deluge with the 17th of the 2d month of the old Hebrew year. (It will be observed that I have reckoned here by the fixed zodiac of the Greeks, and not by the real zodiac.)

It may be said, however, that we ought to make the calculation, not by tropical years, but by the vague sacerdotal years in use among the Egyptians. In this case the simplest method would be to reckon back by these vague years to the æra of the deluge from the year 8 before Christ, when the Egyptian Kalendar was reformed. Now if the deluge happened 3120 years before, we should have in this space of time two periods of 1460 years, and 200 years over; and consequently the 17th of Athyr would have been then exactly 50 days earlier than in the year 8 before our æra. If we reckon the deluge for the year 2340 before this same year 8, we shall find in this interval of time one period of 1460 years, and 880 years over. Now the

thoth of the month Athyr, wandering through the seasons with each period of 1460 years, came 145 days sooner 2340 years before the year 8 before Christ, than it did then; and Athyr instead of being an autumnal was a summer month. It follows that, according to this mode of reckoning, Mr. Faber's notion is untenable.

But it is not at all unlikely that the Egyptians may have celebrated the annual ceremony of enclosing the image of Osiris in a wooden chest, and of committing it to the waters of the Nile, at the autumnal season, without regard to the mutations of the months which changed their thoths every fourth year. I think that this conclusion may be made even from the statement of Plutarch. (De Is. et Osir.)

Osiris was symbolised by a bull; and the reason may have been, that Osiris was the name under which the Egyptians worshipped the Sun; and that when they established that worship, Taurus was the leading constellation. Mr. Faber thinks that Noach was also symbolised by a bull.

There are certainly some circumstances, which

seem to connect the rites practised in honour of Osiris and Apis with the traditions which the Egyptians may have preserved of the deluge. The image of Osiris placed in a chest, and left to float on the waves about the same season, though not on the same day, when Noach entered the ark, may originally have symbolised the patriarch enclosed in his ship without rudder, sails, or oars, and tost to and fro on the shoreless world of waters.

Without supposing that the Egyptians of later times were even acquainted with the name of Noach, or had preserved any accurate memorials of the catastrophe which had happened in his time, we may believe that some of the rites instituted in honour of Apis bore reference to the eventful history of the deluge. Not only was Taurus the leading constellation, when, according to the chronology of the LXX, the deluge happened, but Taurus rose achronically at the season when Noach entered the ark. If the Egyptians were acquainted with the zodiacal signs from the early period, which I have stated in my memoir on the zodiacs of Esneh and of

Denderah, this circumstance could hardly fail to attract attention among the immediate descendants of Cham. The Tsabaists, for several ages after the deluge, adored the Sun, when at the vernal equinox that luminary arrived in the constellation of Taurus; and they no doubt attributed to the influence of their deity, whom they symbolised by a bull, the mighty inundation which had overwhelmed this terrestrial globe. The existence of this event might be in a great degree forgotten, after years and centuries had rolled away; but some reminiscences of the truth are still apparent amidst the delusions of a mad mythology. In Egypt Mnevis, the bull of Heliopolis, was said to be sacred to the Sun, and Apis, the bull of Memphis, to the Moon. (Suidas in voce Apis.) But Macrobius has more accurately referred all the sacred bulls of Egypt to the Sun in the sign of Taurus. Strabo says that Apis was the same with Osiris (L. 17. p. 807.); and according to Plutarch (de Isid. et Osirid.) the priests of Egypt considered this bull as the fair image of the soul of Osiris. Hence no doubt Lucian has called Apis the greatest God of the Egyptians. Now it is difficult to

account for this extraordinary veneration for the sacred bull of Memphis, so many ages after Taurus had ceased, by the precession of the equinoxes, to be the leading constellation, if there were not some mysteries concealed in the rites which were performed in honour of Apis. We hear less of Amoun than of Osiris, though Amoun represented the Sun in Aries, which had led the constellations for more than 2000 years, before the Greeks appear to have had any accurate notions of the state of Egypt. It would seem probable therefore that the worship of Apis was connected with some great event which had already taken place, when the postdiluvian Tsabaists adored the Sun in Taurus as the symbol and representative of the God of the universe. This great event might have been, and most likely was, the deluge. The bull was perhaps at first considered as the symbol of the deity that had presided over Nature during this wreck of her works, and that had guided and protected the solitary vessel which floated on the surface of the boundless ocean. But in process of time the type may have been misinterpreted; and the symbol of

the preserving God may have been mistaken for that of the principal person preserved. When a new Apis was deified, he was placed in a boat on the Nile; and before his instalment as a Divinity at Memphis, he was conveyed by water to Nilopolis, where he remained during the exact space of 40 days. This period is remarkable; and the reader will remember that the flood was 40 days upon the earth. Diodorus Siculus mentions an indecent ceremony, which took place during the time that the sacred bull remained at Nilopolis. It was there only that women could see him; and according to the historian they stood before the Apis, *καὶ δεικνύασαν ἀνασυράμεναι τὰ ἑαυτῶν γεννητικὰ μόρια.* The sacred bull was then placed in a decked vessel with a gilded cabin, (because gold was the symbol of the solar light,) and conveyed to Memphis, where he was placed in a chamber, or chapel, in the grove sacred to *Pthah.* Here he was exhibited to male visitors, who, according to Jablonski, were obliged to appear naked. Whether this denudation had any reference to the uncovering of Noach, I shall leave others to determine.

Vossius has strenuously argued that the patriarch Joseph, and the principal events of his life, were symbolised in the rites solemnised in honour of Apis. Jablonski, who seldom chooses to agree with any body else, has taken up the contrary side of the question. His principal arguments are that the Jews were too much hated and despised by the Egyptians, for the latter to have thus honoured the memory of the Hebrew patriarch; and that the rites instituted by the worshippers of Apis were not established until the reign of Aseth, 320 years after the departure of the Israelites out of Egypt. But Joseph himself was not hated nor despised by the Egyptians. With regard to dates I cannot agree with Jablonski. He refers to Syncellus, who says that under the reign of Aseth, ὁ μόσχος θεοποιηθεὶς, Ἆπις ἐκλήθη, *the calf called Apis, was deified.* Allowing to the authority of Syncellus all the respect, which upon such a subject I should be inclined to refuse to it, this statement is entirely contrary to the conclusion which Jablonski would draw from it. Aseth, according to Syncellus, began to reign in the year of the world 3716; and the same writer

31048.

fixes the year of Joseph's death for the year of the world 3673, consequently only 57 years before the reign of Aseth, who died 20 years afterwards, 2 years before the birth of Moses. What then becomes of Jablonski's argument, when he asserts, that according to Syncellus, the Apis was not deified until Aseth mounted the throne, 320 years after the Israelites quitted Egypt? (Syncell. p. 116 et seq.)

But although the worship of Apis may have been established even later than the time of Aseth, yet the celestial bull appears to have been adored by the Egyptians at a much earlier period. According to the mode of reckoning adopted by Syncellus, Aseth began to reign 1818 years before the birth of Christ. Now the Sun at the vernal equinox had retrograded then nearly 10 degrees from the sign of Taurus, according to the real zodiac; and as the sacred bulls of Egypt had all reference to the celestial bull, it is necessary to carry back the institution of the worship of the image, at least, of this sacred animal, 2500 years before Christ, and rather more than six centuries after the deluge, according to the chronology of the LXX. The bull of Helio-

polis was the prototype of that of Memphis. It appears from a passage in Ælian (L. 11. c. 10.) that the worship of the bull was instituted by Menis, the first king of Egypt. This is hardly credible; but the worship of the bull Mnevis existed before that instituted in honour of Apis. Mnevis, says Plutarch, (de Is. et Osir.) is sacred to Osiris, and is considered by some as the father of Apis. Diodorus Siculus (L. 1.) may have alluded to this notion, when he said that the soul of Osiris had migrated into Apis.

Mr. Faber compares the wanderings of Isis to those of the ark. But the wanderings of the Goddess have been generally supposed to represent those of the Moon. It may, however, be observed in favor of Mr. Faber's system, that Isis was pursued by Typhon, and that the astronomical explanation of this part of the allegory is not very clear; while Isis, as the symbol of the ark, might be properly represented as flying from Typhon, the symbol of the Ocean.

Isis *myrionymos*, under her name of *Athor*, or *Athur*, (see Plutarch de Is.) was represented by a heifer; and she is thus depicted on many

Egyptian monuments. The Greeks understood Athor to be the same with Aphrodite. Orion the grammarian says, *καὶ τὴν Ἀφροδίτην οἱ Αἰγύπτιοι καλοῦσιν Ἀθώρ.* Strabo tells us (L. 17.) that at Aphroditopolis a white cow was held sacred; and that Venus was worshipped by the women of Momemphis, where a sacred cow was honoured as Apis was at Memphis, and Mnevis at Heliopolis. This Venus, or Athor, was no other than Isis, who was frequently represented with the horns of a cow. (Æl. L. 11. c. 27.)

Jablonski derives the name of Athor from the Coptic ϵϫωρϩ. This word signifies *night*. Jablonski, to favor his etymology, would have it pronounced *ethorh;* but the obvious sound is *edjorh*. It seems strange that on so slight a foundation, as this imperfect resemblance of the sound of the Coptic word *edjorh*, *nox*, to Athor, the Polish philologist should have named Athor the *Venus tenebricosa* of the Egyptians. Out of many passages which he cites from Greek authors, not one is to the purpose, unless it be that which he quotes from Hesychius, who says that there was a temple *Ἀφροδίτης σκοτίας, Vene-*

ris tenebricosæ in Egypt. But how is this to prove that Athor is a Greek corruption for the Coptic word *edjorh?* Besides, it so happens, that ϵϫⲱⲣϩ, *edjorh*, is masculine; and it does not appear, that the *Venus barbata* was a native of Egypt.

I consider Athor, or Athur, as being nearly the same with the *Ashteroth*, or *Ashtereth*, of the Asiatics. This Goddess, says Philo of Byblos, placed a bull's head upon her own as the symbol of royalty. Her images frequently represented her with horns; and a city, which bore her name, was called *Ashteroth Karnaim*, that is, Ashteroth with two horns. Now Athor, or Athur, was not only represented by a cow; but probably from the images of the Goddess, the word *athyr* came to signify a cow. Thus Hesychius says, Ἄθὺρ μὴν καὶ βοῦς παρὰ Αἰγυπτίοις—*Athur, mensis et vacca apud Ægyptios.*

With regard to the name of Athur, or Athuri, which according to Plutarch was one of the many names of Isis, I am inclined to think that the Egyptians obtained it from the Arabians; and that so far from its signifying the dark Ve-

nus, it meant on the contrary the brilliant Venus. The ancient Arabians were Tsabaists like the Egyptians. They named the planet Venus زهرة *Zohreh*, or *Zuhreh*, from the root زهر *Zahur*, or زهور Zahor, *luxit, splenduit.* Here then we have *Zuhreh*, the Arabic name of Venus. The sixth day of the week, and the ninth month of the year, were sacred to *Zuhreh*, who was also called *Belthi*, or *Beltha.* (Hottinger. Hist. Oriental. L. 1. c. 8.) But *Zuhreh*, or (with the crement) *Azuhreh*, signified also the moon, and a cow, or, as Golius has it, *vacca silvestris.* It seems to me that this Arabian Goddess *Zuhreh*, or *Azuhreh*, was the same with Isis worshipped under the name of *Athuri*, as Plutarch writes the word. Athur, or Athuri, the Egyptian Venus, was the same as Isis, or the Moon, and the name signified a cow. *Zuhreh*, or *Azuhreh*, the Arabian Venus, was also a title of the Moon, and the name signified a cow. *Azuhreh*, or *Azohr*, (for it would be difficult to decide how the words ازهرة and ازهر were pronounced, and supplied with vowels, 2000 years ago,) might easily be changed into *Athuri*, *Athur*, or *Athor*,

by the Egyptians, if indeed we can trust to the Greeks for the accurate orthography of any Oriental name whatever.

In addition to these remarks we may observe that *zuhreh*, or *azuhreh*, in Arabic signifies whiteness, and the cow was white which was held sacred at Aphroditopolis, and which was so often represented in the boat as the symbol of Athur, or Isis.

But what relation, it may be asked, has this Goddess depicted as a cow, and sailing in a boat, with the history of the deluge? The reader will remember that תבה *thebah* is the word by which the ark of Noach is designated in Hebrew. Mr. Faber cites two passages from the Etymologicon Magnum, and from Tzetzes, of which it will be sufficient to quote the following words—*Θήβα Συριστὶ λέγεται ἡ βοῦς, Theba Syris dicitur vacca; Θήβη γὰρ ἡ βοῦς κατὰ Σύρους, Thebe enim vacca apud Syros.* But the Syrians may have pronounced this word *tseba*, or *tsebe*, which the Greeks changed into *theba*, or *thebe*. In this case the Syriac word would be the same with the Arabic ثابت *tsebat*, or ثابه *tsebah*, a heifer. I

rather wonder that Mr. Faber has neglected to take notice of the following passage in Diodorus—*Ἔνιοι δὲ λέγουσι τελευτήσαντος Ὀσίριδος ὑπὸ Τυφῶνος, τὰ μέλη συναγαγοῦσαν τὴν Ἶσιν, εἰς βοῦν ξυλίνην ἐμβαλλεῖν, βύσσινα περιβεβλημένην, καὶ διὰ τοῦτο, καὶ τὴν πόλιν ὀνομασθῆναι Βούσιριν—Nonnulli etiam dicunt, Osiridis a Typhone necati membra Isidem in ligneam vaccam conjecisse, byssinis obtectam, et hinc Busirim urbem nuncupatam.*

Still it may be asked, why the ark should be represented by a cow? The answer of the disciples of Messrs. Bryant and Faber would probably be to the following effect. Osiris was the fictitious creation of the Tsabaists, who were descended from Noach; who confounded the traditions concerning the deluge with their own superstitions; and who worshipped the patriarch as a personification of the Sun under the name of Osiris. The deluge took place, as before stated, when the Sun began his annual course at the vernal equinox in the constellation of Taurus. Hence the adoration of the tauriform Sun, which was considered as the symbol of the deity at the epoch when the

flood prevailed; and hence a bull became the symbol of Osiris, himself the type of Noach worshipped in conjunction with the solar orb. Isis was the representative of the ark and of the moon. At the season of the year when Noach entered the ark, the full moon rose with Taurus. But as the moon approached to her conjunction with the Sun, and as she rose after that conjunction, the form of the crescent suggested the idea of a boat, or ship, and hence Isis became the symbol of the ark. Again, the lunar crescent was symbolised by the horns of a heifer, and hence a cow became the symbol at once of Isis and of the ark. In the following chapter we shall find that the Goddess was adored under the form of a ship.

How far these observations may tend to prove any connexion between the mythology of the Egyptians and what has been called the helio-arkite worship, I shall leave others to decide; but there are certainly some of the arguments employed by the learned writers mentioned above which appear to me less plausible than those which I have been stating.

Mr. Bryant, if I recollect rightly, (for several years have elapsed since I have read his work, and I have been unable to meet with a copy of it in this country,) has contended, that the capital of Egypt was called Thebes from the word תבה, *thebah*, which is the name given to the ark in the Hebrew scriptures. I cannot venture to say any thing of Mr. Bryant's reasoning upon this subject; but I can have little doubt in my own mind that this etymology is erroneous. According to some, the word תבה is derived from בה, or בהה, which signifies *emptiness;* and according to others it is to be traced to the Arabic root ثبا, *tsaba, congregavit.* I assent to the first of these derivations; and understand תבה, in its general sense, to signify what is hollow. With regard to the name of the Egyptian city, I can conceive no adequate reason, why it should have been called from Noach's ark. The ark in which Moses was exposed was likewise called *thebah;* and we may therefore conclude, that the word signified any hollow box, boat, or vessel, great, or small. In Coptic the word ΘΗΒΙ signifies *capsula,*

scirpea, fiscella; and consequently bears nearly the same meaning as the ark of bulrushes in Exodus.

M. Champollion, in his learned work on the geography of ancient Egypt, thinks that the name, which the Greeks wrote Θῆβαι, was nothing else than the Egyptian word ⲦⲀⲠⲈ, *tape, caput*, which was the name naturally given by the inhabitants to the capital of their country. But what capital city has ever become so, without bearing a previous name? Besides, M. Champollion seems not to have been aware, that the name of Thebes was not originally given to the city alone, but was extended to the whole of Egypt. This fact is distinctly asserted by Herodotus—τὸ δ' ὦν πάλαι αἱ Θῆβαι Αἴγυπτος ἐκαλέετο—*Egypt was anciently called Thebes.* (L. 2. c. 15.) Aristotle (Meteorolog. L. 1.) speaks to the same purpose—τὸ ἀρχαῖον ἡ Αἴγυπτος Θῆβαι καλούμεναι.

Rossi has translated the Coptic word ⲐⲈⲂⲒ, *thèbi*, by *fovea, cavea, caverna;* and has clearly shown that it has been ill rendered *cippus*, and *cippus vinctorum*, by Kircher and La Croze.

That this word may occasionally bear the meaning ascribed to it by Rossi, I pretend not to deny; but as it is derived from ΘΕΒΙΟ, which as a verb signifies to bring down, to humiliate, to make low, I should apprehend that *thebi*, as a noun, generally signifies lowness, and that as a local name it would indicate a low place, a low country. Hence it might become the name of the valley of the Nile, and of the principal city situated in that valley.

Mr. Bryant, if I do not err, connects the ברית, *berith*, or covenant, which Jehovah made with Noach, with the Armenian *Baris*, and the ark with a kind of boat called *barïs*, which is used upon the Nile. All that could be said in favor of this singular hypothesis was probably already stated by Bochart.

According to Nicolaus Damascenus the ark rested on a mountain of Armenia called Baris. Strabo (L. 11.) mentions a temple of Baris near the road which led to Ecbatana. Josephus names the spot, where Noach came out of the ark, ἀποβατήριον, and Jerom understands this word to signify *egress*. This explanation of the

word is supported by Bochart, who maintains that *baris*, or *bariz*, bears the same sense in Armenian and in Arabic.

Now the word ἀποβατήειον signifies *descent*, and not *egress*, as Bochart must have known, whether Jerom did or not. It is true, that in Arabic the verb ברז *beraz* signifies *prodiit, exivit;* but what connexion exists between Mount Baris, or the temple of Baris, and the Arabic verb *beraz, exivit?* This word, it is besides to be remarked, does not mean *egress*, when used as a noun. (Golius in voce.)

Some writers have fancied, that the temple of Baris, of which Strabo speaks, was dedicated to the idol which is named בעל ברית, *Baal Berith*, in Scripture. I agree with Parkhurst in thinking, that by *Baal Berith* the idolators meant Baal the purifier, whose votaries, or victims, were fancied to be purified in passing through the fire.

But what proof exists that there was such a deity as Baris? Strabo's words are, παρα τὸν τῆς Βάριδος νέων, which Bochart translates, *præter Baridis Deæ templum.* But Strabo

speaks of neither God, nor Goddess. The translation should be, *præter templum Baridis.* The word *baris*, derived from the Oriental בירה, signified a tower, a castle, a rock. The last interpretation probably belonged to it here, since N. Damascenus calls it a mount. It seems to me that Strabo meant to speak of a temple situated on the rock, or mount, called Baris.

When the Greeks used the word *baris* as denoting a boat, they must have derived it from another source; and indeed they never employ it in this sense, except with reference to the boats of the Egyptians. Herodotus describes the vessels on the Nile which were known by this name. According to Diodorus Siculus the boat, in which dead bodies were conveyed across the Nile and over the Acherusian pool to the place of sepulture, was denominated *baris*. Kircher, in his *scala magna*, gives us ⲂⲀⲢⲒ, *bari*, as a Coptic word signifying *navicula, scapha.* I can see nothing in all this to connect the boat called *baris* with the ark of Noach, or with the *berith*, or covenant. If the Egyptians typified the ark of Noach by the *baris* of Osiris, they probably

did so, without knowing that there was a mountain in Armenia, which, if we can depend upon the Greeks, was called *Baris*, and without considering that the Hebrew word for a covenant was *berith*.

The boat of Osiris denoted among the Egyptians the same constellation as that to which the Greeks afterwards gave the name of the ship Argo. Messrs. Bryant and Faber consider the ark of Noach as having been the prototype of both. I shall presently examine this question, which merits attention; but I must in the mean time object to some opinions, which have been advanced by the two learned men whose names I have just mentioned. Mr. Faber's book being before me, I shall confine my remarks to it.

"By the Greeks," says Mr. Faber, "a mare was denominated *hippa*, and I am inclined to conjecture, that this animal was so called by them, not *arbitrarily*, but *designedly*, and in consequence of its being an emblem of the ark; the Chaldeans and Phœnicians terming that immense vessel, in opposition to small open boats, *hipha*, or *siphina*, which signifies a decked or covered

ship. From this root the Greeks formed their word *hippa*, a mare, because a mare was the symbol of *hipha* the ark." The author observes in a note, that "ספינה in reality springs from the primitive root חפה, or in its most simple state חף; being formed by the addition of the prefix s." The word ספינה, *sephinah*, occurs, I believe, only once in the Bible—in the 1st chapter of the book of Jonah; and it is to be observed that אניה, *aniah*, the proper word for a ship, occurs no less than three times in the 5 first verses of this same chapter. The truth, however, is, that *sephinah* properly signifies *navis penetrale;* and this is the sense in the passage in question; though in rabbinical Hebrew, and in the cognate dialects, Buxtorf's explanation, to which Mr. Faber refers, may be admitted,—*navis, proprie magna, quæ superne tecta est.* But of what advantage is this to Mr. Faber? What has *sephinah*, a decked ship, to do with *hippa*, a mare? Mr. Faber says, that ספינה springs from חפה, being formed by the addition of the prefix s. Now unfortunately the letter s, (that is the Hebrew *samech*,) is always radical, and never was, and

never can be a prefix, either in *sephinah* or in any other word. Every Hebraist must see at once, that ספינה, *sephinah*, comes from ספן, *saphan*, *texit*, and not from חפה, *chaphah*, *texit*. Mr. Faber says, that the Chaldeans and Phœnicians called the ark *hipha*. But the word חפה, *chuphah*, employed as a noun, signifies a chamber. Parkhurst translates it an alcove. I am not aware that it is ever employed to signify a ship of any kind; and the author should have produced at least one example to prove that it is ever used to signify the ark. Until this example be produced, and until it be shown that *chuphah* signified a ship in any of the Oriental dialects, I shall take leave to consider the etymology, which refers the Greek word *hippa*, a mare, to the Hebrew word *chuphah*, as entirely chimerical.

But it is said that the horse was sacred to Neptune; that the Greek poets occasionally called ships horses; and that the Carthaginians very generally gave the appellation of horses to their ships. This is all true, and yet it proves nothing to the purpose. The bark conducted by the mariner might be compared to the horse

guided by the rider. The Greeks might call ships the horses of the ocean, by the same license of metaphor that the Arabians call camels ships of the desert. When this comparison was once established between ships and horses, the mythologists of the Pagan world represented the horse as sacred to the God of the sea; and this animal thus became the symbol of navigation. Hence the Carthaginians adopted the horse as one of their favorite emblems; and the figure of a horse was generally exhibited on the prows of Punic ships. This is precisely the reason which Strabo gives for these ships being called horses.

Mr. Bryant derives the name of the ship Argo from the Hebrew word ארגז *aregaz*. This is certainly one of the most whimsical etymologies ever imagined. *Aregaz* signifies a small chest, or casket. (See 1 Samuel c. vi.)

Mr. Faber derives *Argo* from ספינה ארכה *arcah sephinah*. Was he aware that this etymology had been already proposed by Bochart, who however writes his Hebrew with more accuracy, ספינה ארכה—*length of a ship* being a different

thing from *a ship of length*, or *a long ship?* But how can it really be imagined, that the Greeks took the name of their ship from two Oriental words, of which they left out one, and that one necessary to denote the object? Bochart boldly says that the Syrians called their long ships ספינן ארכא *sephinin aruca.* He should have shown where.

Neither Bochart, nor Mr. Faber, has remarked that the Arabians and the Syrians name the constellation of Argo سفينه, *al sephinah*, and הספינה, *ha sephinah*, the ship? How come they not to call it the *long* ship? The Rabbin very frequently make use of the word *sephinah*, or *sephina;* but I have never once found it in conjunction with *arucah.* Now before we admit that the Greeks derived *Argo* from *sephinah arucah*, we must at least be convinced that these words were constantly, or frequently, united, to denote a ship of a peculiar form.

While I am speaking of the constellation of Argo as named by the Orientalists, I wish to observe that Hyde hallucinates in endeavouring to explain its Persian appellation, which is written

تربيش in the tables of Ulugh Beigh. With a slight change in the orthography all the difficulty disappears. I read تير بيش, *tir besh*, *navis magna*.

Messrs. Bryant and Faber have argued, that the symbols employed to denote several of the southern constellations were intended to be commemorative of the deluge. If their reasoning be just, it may be naturally enquired, why we find no such symbols relating to diluvian history among the signs which denote either the constellations of the Zodiac, or those of the northern hemisphere? I know not how this question can be answered, unless we suppose the constellations to have been already divided, named, and symbolised, before the deluge, with the exception of a few in the southern sky. That the zodiacal catasterisms were actually divided before the deluge, I have endeavoured to show in my memoir on the Zodiacs of Esneh and Denderah; and I have little doubt that the same thing is true with respect to most of the other constellations. At the same time there is nothing improbable in the supposition, that the immediate descendants of

Noach should have invented new astral symbols commemorative of the universal deluge, and of that fearful catastrophe of which the patriarch and his family were the only survivors.

It has been generally thought that the ark of Noach was the original prototype of the celestial ship. Impressed with this belief, modern astronomers have given the name of *Columba* to an asterism in the neighbourhood of Argo. The ingenuity of the writers, whose names have been mentioned above, has discovered, not only the ship, but the crow, or raven, the bowl, the centaur, the wolf, and the altar, to be symbols of the history of the deluge. With regard to the ship, Plutarch informs us that this constellation had been figured as the boat of Osiris by the Egyptians, before it had been represented as the ship Argo by the Greeks. The same author observes, that the Egyptians denominated the commander Osiris, and the pilot Canobus—*τὸν στρατηγὸν ὀνομάζουσιν Ὄσιριν καὶ τὸν κυβερνήτην Κάνωβον.* That the boat of Osiris was placed in the Egyptian sphere, ages before the Greeks represented the ship Argo in theirs, I readily admit;

but I am much disposed to believe, that the Greeks began by copying the sphere of the Chaldeans and Phœnicians. How far the Greeks hellenised the astronomical fables of the Orientalists, it is not necessary here to enquire; but they seem to have taken the symbolical forms of the constellations rather from the Asiatics than from the Egyptians. Even the Greeks of Alexandria copied the Chaldeans in dividing the Zodiac into eleven constellations, instead of twelve, as was done by the Egyptians from the most remote antiquity. *Ægyptii*, says Servius, *duodecim asserunt signa; Chaldei vero undecim.* We may therefore conclude, that as the Greeks copied the Chaldeans in extending the constellation of Scorpius through 60 degrees, they likewise followed that people in the forms which they gave to the other astral symbols. There seems nothing impossible, therefore, in the supposition, that the immediate prototype of the Argo was not the boat of Osiris, but the ship of Xisuthrus. Were this investigation pursued, it would, I am convinced, prove more to the purpose of Messrs. Bryant and Faber, than

any evidence which can be obtained from Egyptian monuments.

There are, however, circumstances, which seem to show that traditions concerning the flood existed in Egypt, even after the period when the Macedonians became masters of that country. In the time of the second Ptolemy the knowledge of the deluge could not have been lost, because Manetho speaks of it as of an event, which it was sufficient to name, in order to be understood. He says that he compiled his history from the columns which the first Hermes had inscribed with sacred characters, which characters were translated by the son of the second Hermes into Greek, μετὰ τὸν κατακλυσμὸν, *after the deluge.* The whole of this passage, which I have abridged, is to be found in Eusebius, (Præp. Evang. L. 1. c. 9.); and the text should be corrected, by reading εἰς τὴν κοινὴν διάλεκτον, and by rejecting the words τὴν Ἑλληνίδα. Now although little credit be due to Manetho, yet as he speaks of the deluge, there must have existed a tradition concerning it, and a tradition of

which the author supposed none of his readers to be ignorant."

I am now to state an observation, which is intimately connected with the present subject, but which I am afraid will appear of little value to some persons, because it is founded upon an etymology; and etymology, it must be confessed, is a shoal, on which the reasoning of the antiquary has often been wrecked.

Herodotus tells us, that Pan was the most ancient of the eight great Gods of Egypt; and that Mendes was the Egyptian name for a goat and for Pan. (L. 2. c. 46.) Several other Greek authors, probably in following the father of history, speak to the same purpose. Kircher has even introduced *mendes* as a Coptic word signifying *hircus*, into his *scala magna*. But no such word exists in Coptic; and Herodotus, who did not understand Egyptian, as I have fully proved elsewhere, appears to have confounded the name of the God with that of one of the districts in which he was worshipped. Pan was adored principally at Mendes and at Chem-

mis. Pindar, who flourished before Herodotus, thus describes the former city—

> Μένδητα παρὰ κρημνὸν θαλάσσης ἔσχατον
> Νείλου κέρας.

Aristides finds fault with Pindar for placing Mendes in the neighbourhood of the sea; but as the Mendesian nome extended to the sea, this objection appears hypercritical. I am indeed almost tempted to believe, that the real meaning of the name had been explained to the Greek poet. Certainly ⲙⲁ-ⲛⲧⲏϣ *ma-entesh*, pronounced *ma-endesh* by the Egyptians, would signify *locus termini*, which Pindar appears to have poetically rendered by κρημνὸν ἔσχατον. But be this as it may, there can be little doubt, that *mendes* signified neither Pan, nor a goat, in the Egyptian language.

The Egyptian Pan was also worshipped in the city, which the Greeks called Panopolis, and which was named Chemmis, or Chemmo, no doubt after the God, by the Egyptians. (Diodor. L. 1.) The Copts denominate the same city variously ϫⲙⲓⲙ *Chmim*, ϧⲙⲓⲙ *Kmim*,

ϢϢΙΗ *Shmin*, and ϢϢΟΥΗ *Shmoun*. (See Champollion's Egypt under the Pharaohs, and Jablonski's Pantheon.) The same name is pronounced *Ichmim* by the Arabs.

Now the names *Chemmis*, *Chemmo*, *Chmim*, *Ichmim*, are all to be traced to the Egyptian ϧΗϢ, *Kem*, or ϧϢΟϢ, *Kmom*, *incalescere*; which, with the leave of some learned men who hold the opposite opinion, I would again trace to the Hebrew חם *cham*, and חמם *chamam*, *calefactus est*. The Tsabaists, who adored the Sun as the God of generation, might naturally give to that God, that is to say to the Egyptian Pan, the name of Cham, or Chem, which is derived from a word which signified *incalescere*. The question now is, whether this *Chemmis*, or *Chem*, might not have been the patriarch Cham, adored at first as their common father, and afterwards as the emblem of the God of generation, by the idolatrous Egyptians?

The Copts frequently denominate the city of Pan *Shmin*, or *Shmoun*, and in their language this word signifies *octo*. According to Herodotus, as we have just seen, Pan was the most an-

cient of the eight great Gods of Egypt; and as the Egyptians appear to have considered Pan, whom they called *Chem*, as the type of the generative principle, it was natural for them to represent this deity as the most ancient of their Gods, whose number was originally limited to eight. I should therefore conjecture, that Panopolis was named *Shmoun* by the Egyptians in honour of the eight Gods; but that it was also called *Chem* after the principal and most ancient of these deities.

I shall leave it to others to decide, whether the eight great Gods of Egypt might not have been originally the eight persons saved in the ark. But in this case it may be asked, why the character of the most ancient is given to Chem, or Cham? It would be vain to attempt to account for the deviations which mythology has made from truth and history. As however Cham was the first settler in Egypt after the flood, as many of the institutions of that country may have been established in his time, and as the people considered him as their common progenitor, his idolatrous posterity might naturally

have given him the primary place in their Pantheon, especially as in the course of a few ages the mythologists had probably obliterated all certain traces of true history, and had left nothing behind them but fables and allegories, built upon vague traditions and mutilated legends.

It is not improbable, however, that Pan, or rather Chem, was known to the Egyptians by the name of ⲠⲘⲈϨ-ϢⲘⲞϒⲚ, *Pmeh-Shmoun the Eighth*, and that he was worshipped under this appellation at Panopolis, called *Shmoun* by the Copts. There are some points of resemblance between the ancient theology of the Egyptians, and that of the Phœnicians, which appear very remarkable.

The eight great Gods of Egypt were apparently the same with the *Cabiri*, or *Gabiri*, the Great Ones, of Tsidon. Of these there were seven, and afterwards an eighth was born. Damascius, after observing that Esculapius of Berytus was neither of Greek, nor of Egyptian, but of Phœnician origin, and that sons were born to Saduc, who were called *Cabiri* and

Dioscuri, says, ὄγδοος δὲ ἐγένετο ἐπὶ τούτοις, ὁ Ἔσμουνος, ὃν Ἀσκληπιὸν ἑρμηνεύουσιν—*an eighth was born after these, Esmoun, whom they denominate Esculapius.* It was disputed, adds this writer, whether the Phœnicians called him *Esmun* on account of the heat of life (ἐπὶ τῇ θέρμῃ τῆς ζωῆς), or because he was the eighth son of Saduc, and had lighted a fire in thick darkness. One, at least, of these interpretations is sufficiently obvious, since in Hebrew, to which language the Phœnician was very nearly allied, שמונה, *shmunah*, signifies eight, and השמיני, *hashmini*, the eighth, which is clearly the same with the *Esmun*, or *Esmoun*, of Damascius. But this *Esmoun*, (the eighth,) of the Phœnicians was probably the same with ⲯⲙⲟⲩⲛ, *Shmoun*, or ⲡⲙⲉϩ-ⲯⲙⲟⲩⲛ, *Pmeh-Shmoun*, (the eighth,) of the Egyptians.

Damascius says that it was disputed, whether *Esmoun*, whom they also called Esculapius, were not so named, because the word, besides its signification of *octavus*, likewise meant the heat of life, and because this eighth son of *Saduc*, or of the

just one, had lighted a great fire in thick darkness. Now the words *mon*, *meon*, *men*, *mena*, *mina*, were appellations of the Sun, the Moon, and the heavens, in various Oriental tongues; and *esh-mon* probably signified the fire of the Sun in Phœnician. The Phœnician names, of which the Europeans made *Heracles*, *Hercules*, *Asklepios*, *Esculapius*, were probably written חר־כל *her-cul*, (universal heat,) and אש־כל־אב *esh-cul-ab*, in the original. *Ab* signifies *father;* but as D'Herbelot observes, this was à common solar title; and consequently *esh-cul-ab* would signify the universal fire of the father, or the universal fire of the Sun. Thus the name of Esmun is still connected with that of Chem, or Cham, of which the meaning is *calor;* and if Cham were worshipped as the generating power, as *Sol generator*, and as the primæval father, his identity with *Esh-mun*, or *Esh-cul-ab*, becomes highly probable. But the question again returns, whether the eight great Gods of the Egyptians, and the eight *Cabiri*, or *Gabiri*, of the Phœnicians, were, or were not, the fictitious crea-

tions of idolators, who had preserved some imperfect traditions concerning the eight persons who were saved in the ark; and this question I must leave to be determined by others.

CHAPTER IV.

Of the ancient Egyptians considered as a maritime people.

THE subject of this chapter will perhaps excite surprise. The ancient Egyptians, if I err not, are generally supposed to have held the sea in abhorrence, and to have been utter strangers to the art of navigation. The moderns have received this impression from Greek writers, without sufficiently considering that these Greeks visited Egypt in the days of her adversity, when her glory was gone by, and when all her energies were decayed.

Such, according to Plutarch, was the detestation of the Egyptians for the sea, that they symbolised it by Typhon, the evil dæmon. The priests abstained from eating fish, and never made use of salt, which they denominated the

froth of Typhon. But these superstitions had probably only a partial existence, and were not observed beyond the precincts of the sacred colleges. The worship of Osiris was apparently often confounded with that of the Nile; and as the God had been destroyed by Typhon, and as the waters of the river were lost in the sea, the mythologists represented the sea as hostile to the stream, and identified it with the dæmon, the enemy of Osiris. These mythological dreams can scarcely be supposed to have had much practical or political influence; nor, as we shall find in the sequel, had they any whatever, before the period when Egypt was compelled to submit to her Persian conquerors.

Naucratis, as we are told by Herodotus, was the only Egyptian port open to the navigators of the Mediterranean until the reign of Psammeticus. A foreign vessel entering into any other harbour, unless compelled to do so by stress of weather, was condemned; and strangers, who landed on any other part of the coast, were considered as enemies, and repelled as invaders, unless the perils of their situation justified their

debarkation. This regulation is generally supposed to have proceeded from the dislike of the Egyptians to foreigners, and especially to mariners; and is advanced as a proof of their indifference to commerce, and of their peculiar prejudices against all naval enterprises. The Phœnicians, however, were the only people on the side of the Mediterranean, with whom the Egyptians traded in remoter times; and as the whole extent of the coast hardly amounted to 80 leagues, ships with oars might easily proceed to any particular station in calm weather, and in case of danger an exception to the rule was always admitted. Thus the interests of commerce could not have been very greatly injured by the regulation; and if we enquire why this regulation was established, I think we shall find no great difficulty in discovering the reason. It is obvious from events which happened during the reign of Psammeticus himself, that Greek pirates were in the habit of debarking on the coast of Egypt for the purposes of plunder. The monarchs of Egypt, therefore, established the restriction in question, not to preclude the inter-

course of their subjects with foreigners, but to prevent the intrusion of pirates; and it would be unjust to attribute to an absurd prejudice what can be accounted for on obvious principles of prudence and policy.

Strabo, however, has made a remark which militates against the opinion which I have just stated. "The ancient Kings of Egypt," says that author, "were satisfied with the productions of their own country, hating (διαβεβλημένοι) all navigators, but especially the Greeks." But if the Greek navigators, who landed in Egypt, plundered the country whenever they could, the antipathy shown to them by the Pharaohs was not extraordinary. I would likewise observe, that the dislike of the ancient Kings of Egypt to Greek strangers may be dated from an event, which is alone sufficient to explain and to excuse it. The account which Herodotus gives us of the reception of Paris and Helen by Proteus, shows the hospitality of the ancient Pharaohs towards strangers. When Menelaus arrived, he was treated with all the honours due to his rank. But how did the Spartan King re-

turn the kindness with which he was received? Can it be a matter of surprise if the Egyptians evinced their dislike of a people, one of whose Princes requited the hospitality with which he had been treated, by immolating two Egyptian children on the altar of his sanguinary God?

In spite, however, of the statements of the Greeks, from which it has been generally concluded that the Egyptians detested the sea, and were unacquainted with naval affairs; the writings of these same Greeks afford sufficient evidence, to induce us to draw a very different conclusion.

When Diodorus and Plutarch related without animadversion the voyages and conquests of Osiris, they tacitly admitted the Egyptians to have been a maritime people from the earliest period of their history. Osiris was a great navigator; and a great navigator can scarcely be supposed to be King of a people who are utter strangers to navigation. It may be said that the voyages of Osiris were entirely fabulous; but the Greek writers, whom I have named, do not contest the truth of these voyages,

which they ought to have deemed impossible, if the sea had been always an object of abhorrence to the Egyptians, and if that people had been always totally unacquainted with the art of navigation.

Sesostris is generally supposed by chronologists to have flourished about 17 centuries before our æra. According to Diodorus Siculus (L. 1.) this monarch fitted out a fleet of 400 sail; and the ships are said to have been of large dimensions. (Plin. L. 7.) It can scarcely be supposed that a fleet consisting of 400 large ships could be created in the very infancy of navigation. The very existence of such a fleet supposes a long acquaintance with naval affairs.

The voyages of Cecrops, of Cadmus, and of Danaus, all of which took place more than 1400 years before the Christian æra, do not announce the ancient Egyptians to have been afraid of undertaking naval expeditions, or to have been a people who had neither ships nor mariners.

If the Egyptians had had neither ships nor mariners, they could have had no colonies, either in Greece, or on the shores of the Euxine.

Yet the Cecropian towers were built by one Egyptian colony, and the plains of Colchis were peopled by another.

The Greeks, as is clear from the testimony both of Herodotus and of Diodorus, had little commercial intercourse with the Egyptians before the reign of Psammeticus; and they appear to have gathered their knowledge of the history of Egypt previously to that period from the doubtful and discordant testimony of the priests. We cannot therefore be surprised, if they have furnished us with no distinct or continuous history of the naval enterprises of the Egyptians from the age of Sesostris to that of Nechos, the son of Psammeticus. No sooner, however, could the Greeks speak from their own observations, than they announced the naval enterprises of the Egyptians. Nechos sent a fleet from the Red sea, which sailed round Africa, and returned to Egypt by the Mediterranean. I am aware that I shall be told, that Nechos employed Phœnician ships and Phœnician mariners in this expedition, and that Herodotus has said so. It is true, indeed, that the historian has

made this statement in his fourth book; but he had said before in his second, that Nechos had built vessels of three banks of oars both on the Mediterranean and on the Red sea. If this were true, there could be no reason why the Egyptian Prince should have hired vessels from the Phœnicians. The Egyptians had a navy of their own, and a navy superior to that of the Phœnicians. Apries, the grandson of Nechos, defeated the King of Tyre in a naval combat.

How is it possible then to believe, that the Egyptians were a people who always detested navigators and navigation? The accounts of the Greeks are altogether inconsistent. Is it likely, that a people, who had once possessed a navy of 400 large ships, should suddenly abandon all naval enterprises? The fleets of Sesostris had navigated the Erythrean sea and the Indian ocean. After the time of that monarch, Egyptian colonies passed into Europe, and established themselves in Attica, in Bœotia, and in Argos. The vessel, in which Armais, whom the Greeks called Danaus, came to Greece, is said to have had fifty

oars. The ships of Nechos sailed round Africa, from the gulph of Suez to the Canobic mouth of the Nile. In the time of Apries, the Egyptians disputed the empire of the sea with the Phœnicians. The Greeks tell us all this, and yet they also tell us that the Egyptians hated the sea, and were ignorant of the art of navigation.

It may be said, that Sesostris flourished at a much later period than that which is stated above, and that he was the same with Sethos, or Sethosis, the Sesac of Scripture. If this were admitted, it would make no difference with respect to the argument.

When the Greek writers, whom I have named, visited Egypt, the Egyptians were a conquered people. When Herodotus wrote, they had suffered the most cruel and continued persecution from the Persians, of which history affords us any example. Diodorus Siculus, Strabo, and Plutarch, knew them after they had been long humbled under the authority of their Greek and Roman masters. The spirit, the energy, and the independence of the nation were gone, and its superstitions only remained.

The Egyptians, after the time of Cambyses, had neither ships nor mariners; but that this was not the case in the time of the Pharaohs, I think I have clearly shown from the writings of the Greeks themselves.

It has, however, been argued, that the hatred of the ancient Egyptians to the sea may be strongly inferred from the fact that Neptune was not admitted, at least in early times, into their crowded Pantheon. On the contrary, it is said, the sea was typified by Typhon. But although the Egyptians adored no deity, of whom the description answered to that given by the Greeks of their Poseidon, yet there can be no question of their having acknowledged a divinity who presided over the sea, and who protected mariners. Sesostris, according to Diodorus Siculus, dedicated a ship, 280 cubits in length, coated on the outside with gold, and lined within with silver, to the God most honored at Thebes. Marsham thinks that this God was Osiris, and Wesseling holds him to have been Amoun. But though Amoun, or Amun, was worshipped with peculiar reverence at Thebes, the Egyp-

tians, when they spoke of their *summum numen*, generally understood Isis; and Isis was the deity whom they adored as presiding over the sea.

This Goddess is frequently represented on Egyptian monuments as sailing in the *baris*, or barge of Osiris. In various examples, where she appears in this boat, her veil is spread as a sail. This may have led Cassiodorus to say, *vela Isis rati prima suspendit.*

Temples were erected by the Greeks to Isis as the protectress of mariners; and the Greeks must have taken their notions of Isis from the Egyptians. This Goddess was represented by different deities among the Greeks and Romans. In fact she was each and all. Plutarch says that she was the same with Thetis. She is addressed in Apuleius, *Regina cœli, sive tu Ceres—seu tu cœlestis Venus, &c.* But Apuleius must have considered her as the same with the sea-born Venus, when he described her as rising out of the sea; and thus it would appear, that the Ἀφροδίτη of the Greeks was originally the same with the Isis of the Egyptians. In Homer's

hymn to Venus, this Goddess is said to have been wafted with the froth of the sea by the breath of Zephyr to the isle of Cyprus, where she was dressed by the Hours. Plato agrees with Hesiod concerning the etymology of the name of the Goddess, inasmuch as she was called Aphrodite from being produced from the sea-froth—ὅτι διὰ τὴν τοῦ ἀφροῦ γένεσιν Ἀφροδίτη ἐκλήθη. Orpheus gives Venus the epithet of πουτογενὴς, sea-born; and this Goddess could have been no other than Isis, who, according to Apuleius, rose out of the sea, attired in a many-coloured garment. Venus was the patroness of navigation. *Sic te Diva potens Cypri, &c.* Isis was adored under a similar character. The Corinthians, as we learn from Pausanias, built temples to her under the names of the Egyptian and Pelagian Isis. It was probably as the protectress of mariners, that this Goddess was worshipped in the isle of Pharos. Among Gruter's inscriptions there is one *Εισιδι Φαρια.* Juvenal (Sat. 12.) in speaking of the votive tablets hung up by mariners, says,—

—pictores quis nescit ab Iside pasci?

Many temples were consecrated to Isis in the sea-port towns, not only of Greece, but of Italy and Gaul. The Egyptians celebrated a festival in her honour, which was called the festival of the ship; and the Goddess is represented in Apuleius as requesting from her votaries the present of a new ship. Fulgentius (L. 2.) says that the ship of Isis was worshipped by the Egyptians. Thus a ship became a symbol of the Goddess; and there may be reason to think, that she was worshipped under this form from a very remote antiquity. Tacitus has the following remarkable passage: *Pars Suevorum et Isidi sacrificat. Unde causa et origo peregrino sacro, parum comperi, nisi quod signum ipsum, in modum liburnæ figuratum, docet advectam religionem.* But if the Egyptians themselves adored Isis under the form of a ship, as results from the assertion of Fulgentius, and indeed from the statement of Apuleius, a similar symbol of the Goddess might have found its way among the Suevi. That the worship of Isis had been introduced at a very early period into Germany, Gaul, and Britain, is an incontestable fact. How this happened, it would be

difficult to say, unless we suppose the ancient Egyptians to have been less hostile to strangers, and more accustomed to navigation, than most modern writers seem willing to allow.

CHAPTER V.

Of the origin of animal worship among the Egyptians.

IT was the opinion of some ancient sceptical writers, that religion was a mere political institution. Their reasoning is thus stated in the speech which Euripides has put into the mouth of Sisyphus.

Ἦν χρόνος ὅτ' ἦν ἄτακτος ἀνθρώπων βίος
Καὶ θηριώδης, ἰσχύος θ' ὑπηρέτης,
Ὅτ' οὐδὲν ἆεθλον οὔτε τοῖς ἐσθλοῖσιν ἦν,
Οὔτ' αὖ κόλασμα τοῖς κακοῖς ἐγίνετο.
Κἄπειτά μοι δοκοῦσιν ἄνθρωποι νόμους
Θέσθαι κολαστὰς, ἵνα δίκη τύραννος ᾖ
Γένους βροτείου τήν θ' ὕβριν δούλην ἔχῃ.
Ἐζημιοῦτο δ' εἴτις ἐξαμαρτάνοι.
Ἔπειτ' ἐπειδὴ τἀμφανῆ μὲν οἱ νόμοι
Ἀπῆγον αὐτοὺς ἔργα μὴ πράσσειν βίᾳ,
Λάθρα δ' ἔπρασσον, τηνικαῦτά μοι δοκεῖ

Πυκνός τις ἄλλος καὶ σοφὸς γνώμην ἀνὴρ
Γεγονέναι, ὃς θνητοῖσιν ἐξευρὼν ὅπως
Εἴη τι δεῖμα τοῖς κακοῖσι κἂν λάθρα
Πράσσωσιν, ἢ λέγωσιν, ἢ φρονῶσί τι,
Ἐντεῦθεν οὖν τὸ θεῖον εἰσηγήσατο,
Ὡς ἔστι Δαίμων ἀφθίτῳ θάλλων βίῳ,
Νόῳ τ' ἀκούων καὶ βλέπων, φρονῶν τ' ἀεὶ,
Προσέχων τε ταῦτα, καὶ φύσιν θείαν φορῶν,
Ὑφ' οὗ πᾶν μὲν τὸ λεχθὲν ἐν βροτοῖς ἀκούεται,
Ὃς δρώμενον δὲ πᾶν ἰδεῖν δυνήσεται.
Ἐὰν δὲ σὺν σιγῇ τι βουλεύῃς κακὸν
Τοῦτ' οὐχὶ λήσει τοὺς θεούς, τὸ γὰρ φρονοῦν
Ἔνεστι. Τούσδε τοὺς λόγους αὐτοῖς λέγων,
Διδαγμάτων ἥδιστον εἰσηγήσατο,
Ψευδεῖ καλύψας τὴν ἀλήθειαν λόγῳ.

[o] A time there was, when man's unruly life
Was like the brute's, to force subordinate:
The good went unrewarded for good deeds,
The bad unpunished for their wicked acts.
At length mankind established penal laws,
That Justice o'er the human race might reign,
Enthralling violence, and condemning guilt.
Thus by degrees were men restrained by law
From acts of open outrage; but dark deeds
Were done in secret. Then, it seems to me,
Some wise and prudent man, devising means
How to strike terror into guilty mortals,

Ev'n when they acted, spoke, and thought, in private,
Supposed and introduced a deity,
A Genius flourishing with life eternal,
Hearing and seeing intellectually,
Observing, watching o'er such things as these,
And bearing still the nature of a God,
By whom all things are heard that mortals say,
And who can always see whate'er they do.
Ev'n should'st thou plot in silence evil deeds,
Thou canst not hide it from the minds of Gods.
Thus did he teach them a most pleasing doctrine,
Concealing truth beneath the garb of fiction.

But this reasoning, whether employed by poets or by philosophers, is founded in error. The evidence of final causes in favour of the existence of a deity is so clear and obvious, that the history of the world exhibits no example, at any period, or in any country, of its not having been always admitted by the great majority of mankind. Man has never existed as a social being, and has never instituted laws, without having any notion of religion. Neither is the reasoning obscure or intricate, which leads him to conclude, that mind is distinct from body, that intellect could only proceed from intellect, that

matter was organised by something else than matter, and that life must have originally sprung from an eternally living source. The arguments are equally clear, by which the unity of the Deity may be proved from the laws of nature. In those laws intention is always manifest; and where there is intention there is intelligence. But one sole intelligence gave laws to the universe, because the universe is infinite, and therefore we must admit the infinity, and consequently the unity, of its divine legislator. Again, in arguing from effect to cause, we can acknowledge but one primary cause. There cannot be more than one first principle of existence. The monad necessarily precedes the duad and the triad; and as all numbers, though the series may be infinitely extended, flow from the unit, so all causes, though the chain be immeasurable, have originated in one. This reasoning is plain and evident, and has only to be stated to receive assent from every unsophisticated mind.

Well may we marvel then at those aberrations of the understanding, by which mankind have been so often misled in their theological opinions,

We scarcely know, whether we ought most to wonder at the extraordinary number of the Gods of Paganism, or at the characters and attributes ascribed to those Gods. Neither the progress of civilization, nor the cultivation of the arts and sciences, nor the study of philosophy, could set limits to the influence of superstition, or stem the tide of error as it rolled on from age to age. It may not be a matter of surprise, that the fancy of the savage should people his native wilds with ghosts and spirits, that ride on the blast, and menace in the thunder; but it is not so easy to account for the moral phænomenon, when we find the most polished nations of antiquity immersed in all the errors of polytheism and idolatry. We can excuse the rude Indian, who bewails the fate of a suffering deity during the temporary darkness of an eclipse; and we can pity the wandering Arab, who imagines the scorching simoom to be raised and guided by the dæmons of the desert. But what is to be said for the monstrous theology of the ancient inhabitants of Greece and Italy, those teachers of much that is good in morals, and of all that

is sublime and beautiful in the arts? How shall we account for the insane superstitions of the Egyptians, who, though celebrated for their learning and wisdom, brought polytheism to its lowest state of degradation, and were not ashamed to offer the homage of their adoration to the beasts of the field, to the birds of the air, to reptiles, and even to plants?

Some writers have supposed, that polytheism was the original religion of the human race, and that the religious systems, if so they can be called, of the ancient Pagans, were each the separate growth of a separate soil. The theological doctrines of every nation, it has been thought, were peculiar to itself; and in every country rites were instituted, and deities were adored, as fear or as fancy dictated different modes of worship, or indicated new objects of veneration to men, who had always been strangers to the simple but sublime creed of the monotheist.

This opinion may be supported by examples and by arguments, which, at first sight at least, seem difficult to be set aside or controverted.

How, it may be asked, shall we account for the differences which existed between the various creeds of ancient nations, if all those creeds had sprung from a common origin, and if all those nations had once professed a common faith? We find nothing in the mythology of other nations which resembles the *avatars* of Vishnu among the Hindus, or the personified triad by which they represented the Power that creates, preserves, and destroys. The Persian Magi were dualists, who recognised in Ormusd and Ahriman the two principles of good and evil. Even in later times, when their ancient religion had been contaminated by their intercourse with the Babylonians, they adored no idols, built no temples, and worshipped the sacred fire under the open canopy of heaven. The Chaldeans and the Syrians, on the contrary, not only built temples to their Gods, but offered up daily sacrifices to idols and images, to stocks and stones. In Egypt, as has been already stated, polytheism took a yet wider range; and it seems to have been caprice, rather than reason, which excluded any living animals from a Pantheon into which so many had been admitted.

If in some instances the worship of the polytheists of different countries was nearly similar, and if the deities whom they adored occasionally resembled each other, or were in fact the same, the cause, it has been thought, may be explained, without tracing their religious notions and opinions to any pre-existent system of theology, which might be supposed common to all mankind. It was in seeking, it may be said, for the hidden causes of extraordinary events, that the natives of every soil first imagined the existence of invisible and supernatural agents. Their attention being thus turned to those phænomena which most excite surprise and admiration in every region of the globe, they deified, without being known to each other, the same objects, and worshipped similar divinities with similar rites and ceremonies. Hence the Sun and Moon have figured as the principal deities of almost every Heathen creed; and hence when the tempest raged, and the thunder roared, an offended Power was supposed to send the storm, and to hurl the bolt. The aspects of the Planets, their conjunctions and oppositions, were watched

with religious dread; and deities were believed to direct the influences of those wandering orbs. Each element was fancied to be governed by a divinity peculiar to itself. Light and darkness every where represented the contending principles of good and evil. In seasons when the earth teemed with abundance, and men were rich in corn, and wine, and oil, they offered up with grateful piety the first fruits of the year to a bounteous God; and in less happy times, when war, or pestilence, or famine, afflicted the nations, the scourge, it was not doubted, could only be removed, by shedding the blood of victims, to appease the wrath, and satiate the vengeance, of some cruel and angry deity.

Thus, though we allow the worship practised by idolators and polytheists to have been nearly the same in every part of the Pagan world; yet it does not thence follow, it is argued, that any one country borrowed its religious institutions from another. The religion of every separate State may have grown up with its laws and customs, independent of foreign example, and unconnected with the opinions of strangers.

In admitting the plausibility of these arguments, I am inclined to question their soundness. Some at least of the points of resemblance among the various creeds of the Pagans can scarcely be accounted for by the reasoning stated above; and the instances of their dissimilarity more probably proceeded from different interpretations, which different nations came in the course of ages to give to the practice and doctrines of an ancient and universal religious system, than from any other cause.

The descendants of Noach appear to have gradually fallen off from the worship of an only God. The question is, whether in process of time they lost all traces of the primæval faith, became mere children of nature, inferred the existence of supernatural beings from the suggestions of their own reason, and thus established various systems of polytheism; or whether they grafted errors upon truths, and fables upon facts, until mythology took the place of religion, and the adoration of the Deity was succeeded by all the monstrous forms of worship which superstition lent to idolatry.

In attempting to solve these questions we should naturally wish to consult historical evidence; but while the voice of the fabulist is loud, that of the historian is mute; and we must endeavour to found the most reasonable conjectures on the least improbable traditions. Such traditions were more likely to be preserved by the Hebrews than by any other people. Their sacred records, it is true, give no direct account of the origin and progress of postdiluvian apostasy; but it is clear, that when Abraham received his call, mankind had already fallen off from the pure worship of the Deity. The Hebrews would naturally enquire into all the circumstances of the life of their great progenitor. They would desire to know the errors from which he was withdrawn by divine revelation; and their oral traditions would probably supply details, which were omitted in the writings of the inspired historian. Some confidence may therefore be placed in the opinion of Maimonides, and of other distinguished Rabbin, who think that the descendants of Noach relapsed at an early period into the errors of their antediluvian

ancestors, by whom was originally instituted the worship of the Host of Heaven. This opinion is indeed strongly confirmed by the fact, that the greater part of the mythology, and many of the rites and ceremonies of the Pagans, may be traced to Tsabaism, of which superstition I have already had occasion to explain the practice and the principles. The doctrine of emanation led its adherents into fatal errors. In admitting the existence of *æons*, or emanations of the divine essence, they in fact admitted the existence of a plurality of Gods. This imaginary partition of the essence of the Deity was accompanied by the not less imaginary personification of his attributes. The symbolical system, which the Tsabaists first introduced, was followed by yet wider deviations from the religion which nature teaches, and which reason approves. Finally, in maintaining that matter has always coexisted with mind, these same Tsabaists laid the foundations, on which many monstrous superstructures have been since erected by theorists of later times.

If indeed we turn our attention to those countries of the east, where the arts and sciences first flourished, and whence the ancient nations of Europe derived most of their political and religious institutions, we shall find that their mythologies, however varied in appearance, must have originally flowed from a common source. To the doctrine of emanation, taught by the Tsabean apostates, we easily trace the polytheism of the Brahmans, their belief in the avatars of their Gods, and even their peculiar notions concerning the metempsychosis. The same system was followed by the Persian Magi, when they imagined the existence of those *Yesads* and *Divs*, that sprang from light and darkness, and that fought in the rival armies of Ormusd and Ahriman. Angels, or spiritual beings, that were in fact detached portions of the divine essence, were supposed by the Chaldeans to preside over the stars and constellations. In Egypt fluxions of divinity were believed to flow through the whole system of organised nature; souls were thought to migrate from one corporeal form into

another; and Gods were fancied to assume the shapes, and to conceal themselves in the bodies, of animals.

When men had once admitted the doctrine of emanation, and had thus in fact acknowledged the existence of a plurality of Gods, they quickly proceeded to represent these invisible beings by visible signs. At first the celestial bodies, over which the delegated emissaries of the Deity were supposed to preside, served as the types of the powers, which guided them in their orbits; but when the heavens were divided into zones, the Zodiac into parts, and the stars into catasterisms, new symbols were chosen to represent the celestial hosts. Accordingly the Sun, the Moon, the Planets, and the Constellations, were indicated by emblems, which were varied, (and in later times prodigiously augmented in number,) as mythologists found occasion to invent and to employ them. But in examining these emblems, it would be difficult to say, why some of the most remarkable among them were used to denote the same things by nations widely remote from each other, unless they had been

originally devised by the common ancestors of all mankind. A bee entering into the mouth of the Mithraic lion was the symbol by which the Persians represented the King, the Sun, passing into the sign of Leo. The Egyptians denoted the same constellation by the same animal, which was not a native of Egypt. A lion, surmounted by the solar orb, was the device of the ancient monarchs of India. Again, the Sun in the sign of Taurus, appears to have been adored from the Nile to the Ganges. Witness the Egyptian Mnevis and Apis, the tauriform idols of the Syrians and Chaldeans, the Persian Mithras riding on the bull, and the respect and reverence in which this animal is still held by the pious Brahmans. May we not conclude from these circumstances, that the mythological systems of the Pagan nations had a common origin in Tsabaism, and dated their existence from a period when the solstitial and equinoctial colures passed through the signs of Leo and Taurus?

The Tsabeans admitted the eternal existence of matter as well as of mind. This error led to many others, which can be easily recognised in

the creeds of the Pagans. From acknowledging that matter and mind are both eternal, men quickly proceeded to refer all the phænomena of the universe to two powers, which they denominated active and passive. But it soon became a question, whether mental energy might not be resolved into material agency, and thus the advocates of this doctrine easily became the disciples of hyloism and atheism. These active and passive powers were also denominated the generative and productive. The Deity was feigned to be both male and female—that which generates and that which produces; and this was a figment common to the mythologies both of the Greeks and of the Egyptians. More frequently and more naturally, however, the active and generating power was symbolised by a male, while the passive and producing power was represented by a female deity. The Sun, or the material Heaven, was generally adored as the type of the former; and the Moon, or more commonly the Earth, was venerated as the proper image of the latter. Hence were feigned

the marriages of Osiris and Isis, of Ouranos and Ge. Hence was Æther, or Heaven, considered as the all-generating God, and the Earth was worshipped as the great Mother. Neither are we to ascribe to any other source the institution of those phallic rites, which ancient superstition performed with devotion, but which modern decency hesitates to mention, and refuses to describe. It is clear that the priests, who celebrated these impure mysteries, confounded the spiritual power that creates with the material power that generates.

There was another error, more common perhaps among philosophers than among mere mythologists, which I would ascribe partly to the doctrine of emanation, and partly to that which taught matter to be coeval with mind. I speak of the opinion of those who held the universe to be the deity, and who described God as a material as well as a spiritual being. Again, according to the system of emanation, the efflu-ence of the divine essence may permeate the universe, nor can the imagination set bounds to

its progression. Thus the doctrine of emanation may lead to pantheism. Accordingly some, at least, of the Egyptians appear to have confounded God with Nature, and to have recognised in Isis the universal deity; and even among the philosophers of Greece there were a few who, using, or abusing, the same doctrine, took the words ἓν τὸ πᾶν, *unum est omnia*, as the formula of their religious creed.

To the same Tsabean principles I attribute the existence of the dualistic system. If matter exist eternally, it exists independently. Where there is independence, there may be resistance. Evil exists as well as good, and therefore there is resistance. But as good is intentional, so is evil; and intentional resistance to good implies the action of evil directed by intellect. Hence follows the doctrine of the two Principles. Hence Ahriman waged war with Ormusd, and Typhon with Osiris. But matter in itself is inert. The evil Principle was therefore imagined by some of the later teachers of this system to have eternally existed with matter. Thus in fact three beings were supposed to be eternal—the good and evil

Principles and matter, the empire over which was debated by both. This fallacious doctrine appears to have been well received by several Greek philosophers; and was taught by many of the Gnostics to their disciples in the early ages of Christianity. *Magna pars veterum Gnosticorum*, says Mosheim, *tria principia, deum bonum, deum malum, et materiam, discipulis suis commendavit.*

Thus it seems that most of the erroneous doctrines of the Pagans may be traced to those of the Tsabaists. Idolatry clearly owes its origin to the symbols, by which the leaders of the hosts of heaven were represented. The Tsabaists appear to have been the inventors of graphic symbols and of hieroglyphical writing; and it is probable that this writing must once have been in use among the learned classes of all the nations of the East. The forms of the idols worshipped by the ancient inhabitants of Asia appear to have been originally copied from the Tsabean hieroglyphs, which represented the celestial bodies, and which were chiefly composed from the forms of animals. We accord-

ingly find traces of these original forms in all the temples of Oriental idolators, and in all *the chambers of their imagery*. Mithras was represented by the Persians as riding on a bull; and the forms of various animals were sculptured on the sides of his grottos. In India an idol with the head of a ram exactly resembles that of the Egyptian Ammon; and Varuna, borne upon the waters by a fish, may be compared with the Phœnician Dagon. Caliya, like the Egyptian Cneph, bears the form of a serpent; and Mahadeva, like the Iranian Mithras, rides upon a bull. If we turn our attention to the idols adored on this side of the Tigris, we shall find many examples to our purpose. Anamelech was worshipped under the form of a horse—Moloch, under that of a bull—Adrammelech, (who appears to have been the same with the Indian Carticeia) under that of a peacock—Thartak, under that of an ass—Nergal, under that of a turkey-cock—Asima, under that of a goat. Now all these idols were probably copied originally from sacred characters

and hieroglyphical symbols first employed by the Tsabaists, to denote the objects of their adoration.

But while the worship of animal similitudes was thus common in the east, the Egyptians alone appear to have offered the homage of their adoration to animals themselves. This singularity attracted the attention of various Greek and Roman writers, who have endeavoured to account for it. Cicero, Diodorus, and Plutarch, attribute the existence of this superstition to the sense of gratitude which men felt for the services which were rendered to them by animals—by the cow that affords them sustenance by her milk, by the ox that toils for them in the field, by the sheep that furnishes them with clothing, by the dog that warns them of the approach of thieves, and by the ibis and ichneumon that fight for them against snakes and crocodiles. Why then, it may be asked, was the horse not reckoned among the sacred animals of Egypt? Why was the bee, the honey-fly as the Arabians call it, neglected; and why were the serpent and the

wolf considered as worthy of adoration by the worshippers of Cneph, and by the inhabitants of Lycopolis?

Diodorus Siculus in one place refers the introduction of animal worship among the Egyptians to their belief in the transmigration of souls, and in another he accounts for it, on the authority of the priests, by the incarnations of the Egyptian deities, when they entered into the bodies of different animals, to conceal themselves from the vengeance of Typhon. But had this reason been sufficient, we might have expected to find the same results in India. The Brahman believes firmly in the metempsychosis, nor does he doubt of the avatars of Vishnu;—he tastes of no flesh, but he worships no animal. It is besides to be observed that the Egyptians adored many animals, without supposing them to be incarnations of the deities whom they symbolically represented. The causes, therefore, which are assigned by Diodorus for this superstition cannot account for its existence. At the same time we may easily admit, that the belief in their avatars, a belief

which evidently flowed from the Tsabean doctrine of emanation, may have contributed to induce the Egyptians to render divine honours to animals, and may have facilitated among them the introduction of a worship so contrary to the dictates of reason, and indeed so little consonant with the natural feelings of the human mind.

According to Porphyry the worship of animals was founded on the belief, that the essence of the deity pervades the universe, and lives in all living things; and Plutarch seems to hint, that the worship of animals was more rational than that of idols, since creatures possessed of life and perception are more worthy of adoration than inanimate images, in which no portion of the Deity can be supposed to reside. It is clear that both these authors accounted for the superstition in question, by supposing the Egyptians to have admitted the doctrine of emanation; but their reasoning is imperfect, since according to the hypothesis on which it is built, all animals ought to have received the honours of the apotheosis.

Iamblichus thought that the divine nature,

considered with respect to its attributes, was symbolised by the deified animals. This opinion may be just to a certain degree. It remains, however, to be enquired in what manner the Egyptians could consider animals as proper symbols of the attributes of the deity.

The Egyptians, if we believe Lucian, instituted sacred rites in honour of animals, because it was under the forms of animals that they had represented the constellations. It may be justly objected to Lucian, that the Egyptians could scarcely have been the first who represented the asterisms by animals. All the nations of Asia appear to have done the same thing from the most remote antiquity. The zodiacal symbols, it is true, were every where nearly similar; but the lunar mansions were indicated by different animals among the Hindus, the Tartars, and the Arabians, and some of these animals were not among those which were esteemed sacred by the Egyptians. Neither is it even probable, that the Egyptians invented all the zodiacal symbols. The lion is not a native of Egypt; and it is consequently little probable, that the Egyptians

were the first to represent an asterism by the figure of that animal. Thus far the statement of Lucian is objectionable. (Cicero de Nat. Deor. L. 1. Diodor. Sicul. L. 1. Plutarch. de Isid. et Osirid. Porphyr. de Abstinent. Iamblich. de Myster. Ægypt. Lucian. de Astrolog.)

I am inclined to consider the worship of animals as a superstition which is to be traced to Tsabaism, and which, owing to particular circumstances, took root and flourished in Egypt. There can be little doubt, I think, and as I have already stated, that the worshippers of the hosts of heaven had represented the asterisms by symbols, and that these symbols were chiefly taken from the figures of animals. Thus the first sacred sculptures, graven images, and hieroglyphs, became objects of veneration among the people; but in most of the countries of Asia the introduction of alphabetical characters brought hieroglyphs into disuse at a very early period. It consequently happened, that the association, which might have once existed in the minds of men, between the deities and the signs by which they had been represented in those countries,

was gradually diminished, or perhaps entirely destroyed. In Egypt the case was reversed. There the use of hieroglyphs was continued. The people were still accustomed to see their Gods represented by hieroglyphical symbols, most of which were nothing else than the figures of animals. It can be no matter of surprise then, that the veneration of the ignorant and superstitious multitude was extended from the painted and sculptured figures to the animals themselves. Various circumstances might no doubt have contributed to establish this superstition. It was the interest of the Priests to encourage it, because the power of the teachers of a false religion is always great in proportion to the credulity and fanaticism of their followers. Neither might the worship of animals have appeared incapable of vindication to those who admitted the doctrine of emanation, and who believed that portions of the divine essence might for particular purposes have become incarnate in the bodies of living creatures. The error began with the doctrine of emanation, and with the symbols

by which the Tsabaists represented the leaders of the celestial hosts.

This account of the origin of the worship of animals, though not the most elaborate, appears to me to be the most probable of any. It is strongly confirmed by the fact, that while the Israelites were cautioned by their inspired legislator against offering any homage to the similitudes of animals, no allusion is made to the worship of the animals themselves. The worship of the graven image therefore preceded that of the object which it represented. The hieroglyphical symbol of the celestial bull was venerated by the Egyptians, before they worshipped Mnevis, or Apis, as the living emblem of the constellation of Taurus, or rather of the Sun when passing through that zodiacal sign.

It may perhaps be objected to the statement, which I have been making, that many of the animals adored by the Egyptians were clearly not among the symbols by which the Tsabeans represented the leaders of the hosts of heaven; that again there were other animals, which were

employed to typify the constellations, and which were not reckoned among the sacred animals of the Egyptians; and finally, that the zodiacal signs were not invented, nor were the asterisms represented by animals, until long after the period, when the worship of animals was established in Egypt.

In answer to the first of these objections I would observe, that though some, and probably many, of the original hieroglyphs employed by the Tsabeans might have been preserved, yet many new ones might also have been introduced, as mythologists extended the bounds of fable, and as their restless imaginations bodied forth new forms of deity. This appears to have been particularly the case in Egypt, where the use of hieroglyphical symbols was always continued, and where it was necessary that the pen of the hierogrammateus should keep pace, if possible, with the invention of the polytheist. The Egyptians, therefore, probably added many figures of animals to those which already existed in the charts of the heavens, as originally drawn out by the Tsabaists. Nor was this all. Some of

the symbols imagined by the first worshippers of the constellations, appear to have been compounded of figures of men and animals, parts of whose forms were united in ideal and monstrous combinations. Such were the centaurs, satyrs, griffins, sphinxes, chimæras, and dragons. Not only were these symbols retained by the Egyptians, but their number seems to have been prodigiously increased in the graphic forms employed by that people, who generally represented their deities with the heads of different animals. But when we see Osiris with the head of a hawk, Thoth with that of an ibis, and Anubis with that of a dog, we are not thence to conclude, that the Egyptians were the inventors of this symbolical mode of characterising their deities. The Hindus represent Ganesa with the head of an elephant, and the evil dæmon with that of a buffalo. The Egyptians and the Hindus probably derived this hieroglyphical style, if I may so call it, from a common source; and however altered and varied it may have become as employed by those nations, its origin is not the less to be traced to the Tsabean apostates.

The second objection is not more formidable than the first. Some of the celestial animals, it is said, both zodiacal and extrazodiacal, were not reckoned among those which were esteemed sacred in Egypt. Such were the crab, the scorpion, the whale, and the bear. I answer, that the Egyptians represented the constellation which we call Cancer, under the form of a Scarabæus, and this animal, as appears from Horapollo, served as a symbol which bore various meanings, and which was besides one of the hieroglyphs of the Sun. We cannot wonder that the scorpion had no place among the sacred animals, since the sign of Scorpius was considered as the domicile of Typhon. The vast constellation of Cetus, or the Whale, appears to have been represented by the Egyptians sometimes under the form of a crocodile, and sometimes under that of a hippopotamos. Now, though the former of these animals was adored at Ombos, and the latter found worshippers in the Papremitic nome; yet as both were emblems of Typhon, it may be questioned, whether either of them can be properly reckoned among the sacred animals.

The Bear was known in Egypt by the denomination of the Dog of Typhon. It is not true, as Achilles Tatius pretends, that the Egyptians did not know the constellation of the greater Bear by that name, because the testimony of Diodorus proves the reverse; but the bear is not a native of Egypt, and the two constellations of the Bears could not have been originally so named by the Egyptians. But as they considered the constellation of Ursa Major as appropriated to Typhon, and as the bear itself was an animal known to them only by description, it is not extraordinary, that it found no place among their sacred animals. With these exceptions, if I mistake not, all the astral animals were held sacred by the Egyptians; and it was probably only because the lion and the wolf were symbols of the constellations which bore their names, that these animals were worshipped in the cities which the Greeks named Leontopolis and Lycopolis. Thus all the animals which the Tsabaists had placed in the sphere were held sacred by the Egyptians, excepting those which were supposed to be under the influence of the evil dæmon.

According to the third and last objection, animal worship existed in Egypt, before the stars were divided into constellations, and before the zodiacal signs were invented. The Egyptians, it is said, first worshipped animals, and then employed the figures of some of these animals to symbolise the catasterisms into which they had divided the stars. How happened it then, that all the nations of Asia, which did not worship animals, should yet symbolise the constellations by the figures of animals? If the Egyptians first placed their sacred animals in the heavens, how came they to give the figure of a bear to one constellation, and that of a lion to another? Neither of these animals could have been known, unless by images, or by description, to the inhabitants of Egypt. Again, if the Egyptians had been the first to place animals in the sphere, why did they neglect to station there some of the most remarkable of those which they adored? We find no example among their astronomical monuments, of their having represented the Moon by the figure of a cat, which was yet the most venerated emblem of the

Goddess Bubastis. I mean not, however, to deny, that most of the zodiacal emblems, as they can now be traced in the remains of ruined temples, were invented in Egypt, and were copied by the nations of the East. The constellations of Capricorn, Aquarius, and Pisces, for example, which rose achronically during the annual inundation of the Nile, seem to have been imagined with reference to that event. But I must consider these zodiacal figures to have been devised at a very early period, while Tsabaism was yet the religion of the descendants of Cham, and while they still propagated its doctrines from the banks of the Nile to those of the Ganges.

With respect to the period when the stars were first divided into constellations, and when the astral emblems were first invented, there is much diversity of opinion. Without wishing to enter into any controversy on the subject, I shall briefly state the reasons which induce me to refer that period to a very early date, and long previous to the time when animal worship was introduced into Egypt.

It is not my intention to avail myself of the

traditions, (preserved not only by many Oriental writers, Jews, Syrians, and Arabians, but by some of the most distinguished Fathers of the Church,) according to which the antediluvian Patriarchs are said to have been profoundly skilled in the science of astronomy. The accounts contained in these traditions are no doubt greatly exaggerated; and have hence been superciliously rejected by the severity of modern criticism. It does not perhaps exactly follow, that where much is exaggerated, all must be false. The amplification of truth does not imply the non-existence of truth. A tradition can seldom be justly termed the "baseless fabric of a vision." It is generally founded upon a reality. How far then it may be conducive to the cause of truth to refuse to listen to any testimony, of which a part is fabricated, is a question which perhaps deserves more attention from antiquaries than it generally receives. But it is not my intention to offer any defence of the traditions in question, even when they go no further than to state, that men, whose lives extended to eight or nine centuries, according to Scripture,

became well acquainted with the motions of the celestial bodies, which they had the advantage of observing in warm climates, and under skies almost always serene. I consider it as sufficient for my purpose to remark, that the stars were already divided into constellations in the time of Job, that is, about seventeen centuries before the birth of Christ. Nor is this all. Those, who can read the book of Job in the original, will not doubt that the asterisms were already represented by animals when he wrote, and that by the word *mazaroth* (מזרות) he must have meant either the zodiacal signs, or the lunar mansions. Again there are passages both in Exodus and Deuteronomy, from which I think it clear, that the stars were worshipped under the forms of animals in the time of Moses. Now I contend, that animals themselves were not worshipped in the time of Moses, and much less in that of Job. The Hebrew legislator, who has so often and so justly reprobated idolatry, would not have passed over in silence the adoration of animals, had such a superstition existed in the age in which he lived.

CHAPTER VI.

Of the astronomical knowledge of the Egyptians.

THE reputation of the Egyptians for science is held by some modern writers to have been greatly exaggerated by the admirers of that people. The writers, indeed, to whom I allude, seem to perceive little else than presumption and imposture in all the vaunted learning of Egypt; and they consider her priests and philosophers as quacks and cheats, who affected secresy when they had nothing to disclose, and who spoke in obscure and mysterious language, not to veil their knowledge, but to conceal their ignorance. It has been, however, chiefly with reference to the pretensions of the Egyptians as astronomers and mathematicians, that this severe language has been employed. If some warmth be betrayed in the expressions used, it is no

doubt to be attributed to zeal in the cause of truth.

I propose in this chapter to examine the principal objections urged by the writers in question against the mathematical and astronomical skill of the ancient Egyptians. As however it is my wish to conduct this examination with as much impartiality as I can, I propose to discuss the subject under the form of a dialogue. *Neomathes* shall impugn, and *Philothoth* shall defend the skill of the Egyptians as astronomers and mathematicians.

Neom. Well, *Philothoth*, do you still continue to talk of the Egyptians as of a scientific people? I should think not. I know that you have been lately reading some books, which must have undeceived you upon this point.

Phil. If the books of which you speak, *Neomathes*, had operated any material change in my opinions, I should not conceal it from you; but to speak frankly, my sentiments are still nearly the same; though I willingly acknowledge the learning and talents of the authors of the works to which you allude.

Neom. Surely you do not still mean to speak of the Egyptians as being mathematicians and astronomers. I will admit to you, that even before they were instructed by the Greeks, they knew something of the elements of geometry; had attentively observed the rising and setting of the stars; and perhaps had established the year of 365 days. This is all in their honour, nor would I detract from their just reputation.

Phil. You are really very liberal, *Neomathes*, in your praises of these ancient Egyptians; and yet I must observe, that if they knew no more than what you state them to have done, the world must have been egregiously deceived concerning them.

Neom. No doubt it has been. But the mist through which the learning of Egypt was formerly seen has been dispelled; and we now behold objects, which had been magnified by ignorance and exaggeration, under their real and proper forms.

Phil. I should be glad to hear these assertions confirmed by proofs.

Neom. There is nothing more easy. We first

hear of the Egyptians as beginning to learn geometry about six centuries before the Christian æra, when Thales visited the banks of the Nile. That philosopher taught the Priests to measure the height of a pyramid from its shadow. May we not truly say with a celebrated modern astronomer and mathematician, that if this be true, *ces prêtres étoient bien peu géomètres?* They were in fact scarcely acquainted with the first elements of geometry, until they received some lessons in that science from Thales, Pherecydes, and Pythagoras; the last of whom made them acquainted with that important problem, which now stands as the 47th proposition of the 1st book of Euclid. Thus until they had received some instructions from the Greeks, the Egyptians were as ignorant of geometry, as I shall presently show that they were of astronomy.

Phil. As you are yourself a proficient in the exact sciences, *Neomathes*, I should hardly have expected you to have adduced such proofs as these in favor of your opinion. Did it never occur to you, that the vanity of the Greeks may have induced them to represent their own coun-

trymen as the teachers of the Egyptians? The history of Thales is very imperfectly known; and the story of his having taught the Egyptians how to measure the height of a pyramid by its shadow, appears never to have been heard of until six or seven hundred years after his death. Pliny, if I recollect rightly, is the first who speaks of it. Now I ask you, whether it be not more probable, that the people, who had raised pyramids and obelisks, should have known how to measure their height by their shadows, than that a stranger should have suddenly come among them, and have taught them this operation? You will scarcely pretend that the Greeks knew any thing of geometry before the time of Thales. This must then have been a heaven-born mathematician, who, without any mathematical education among the Greeks, went to Egypt and taught the natives both geometry and astronomy. He was the first truly, who calculated the time of an eclipse! How much the Egyptians must have been astonished at the skill of this stranger! Nor were they alone indebted to him. He wrote a book on

nautical astronomy in the Greek language for the use of the Phœnician pilots; and taught them to observe the stars of *Ursa Minor* during their voyages! It is true, that some writers do not appear to give much credit to these reports; and seem to think that Thales went to Egypt, not to teach, but to learn. Proclus, indeed, says in plain terms, that Thales studied in Egypt those sciences which he afterwards taught in Greece. With regard to Pythagoras the reports of the Greeks are strangely contradictory; and among the moderns several writers of high authority, Stanley, Lloyd, Dodwell, Bentley, La Nauze, and Freret, have disputed about the æra of his birth. If we trust to Freret, to whom I am generally inclined to trust in matters that relate to chronology, Pythagoras was not born before the year 600 before Christ. According to Iamblichus (in vita Pythagor.) Pythagoras went to Egypt at the age of 22 years, and remained there for the same period. Now how is it possible to believe, that between five and six centuries, (probably about 576 years,) before the Christian æra, when the Greeks were yet ignorant

of every science, a raw youth of 22 years of age, bred in the isle of Samos, should have sailed to Egypt, and have taught that ancient people the elements of geometry? Who has ever heard of geometry having previously flourished in the isle of Samos? How then can it be credited on the authority of some gossiping Hellenist, that the Egyptians were instructed in mathematical learning by a Samian geometer? Pythagoras was a man of genius. He probably learned from the Egyptian priests all that men tenacious of their power, proud of their knowledge, and jealous of rivals and opponents, were willing to teach to a stranger, who was neither of their nation nor of their order. Before you again state that Thales taught the Egyptians to measure the height of their pyramids, and that Pythagoras invented the problem about the square of the hypothenuse, please to recollect that those who erected the pyramids must have known how to take a meridian, of which Thales could have had no notion before his arrival in Egypt; and that Pythagoras, when he said he had found, may have had the good sense to mean that he

had recollected, not that he had discovered, the chain of reasoning which enabled him to demonstrate to his disciples at Crotona the celebrated problem, which it were really idle to imagine he had taught to the Egyptians, and not they to him.

Neom. If in speaking of the state of the sciences five or six centuries before the Christian æra, we cannot trust to the reports of the Greeks, I know not that we can say any thing about them at all. The Greeks have told us that the Egyptians were indebted to Thales and Pythagoras for the instructions which they received from those philosophers. I see no reason for disbelieving this statement. The four sides of one of the pyramids answer to the four cardinal points. What does this prove, if after all it did not happen by accident? The Egyptians had only to observe the rising and setting of the Sun at the solstices, to accomplish this mighty achievement. But not to afford further matter for cavil, I must observe that it is really of no consequence to the argument, whether, at the early period of which we are speaking, the Egyptians instructed the Greeks, or the Greeks

the Egyptians. Neither party had then advanced beyond the elements either of geometry or of astronomy.

Phil. You must pardon me. I do not distrust all the reports of the Greeks: on the contrary, it is precisely because I believe some of those reports, that I discredit others which appear clearly to contradict them. Herodotus, who flourished about a century after Pythagoras, and who is the first Greek writer who has given us any accurate or detailed account of the Egyptians, assures us (L. 2. c. 109.) that geometry was transplanted from Egypt into Greece. According to Plato (in Phædro) this science was invented by Theuth, or Thoth; that is to say the elements of it were taught in Egypt at a very remote period. I think it scarcely worth while to refer you to later writers; but you will find it stated in Diogenes Laertius, that Mœris was the inventor of geometry; and Iamblichus, in his life of Pythagoras, refers the origin of this science to the time when Egypt was governed by the Gods, or in other words, to a period antecedent to all certain history. How then are we to believe those Greeks who tell us, that the Egyptians

were instructed in some of the first rudiments of science by two or three of their countrymen, who took compassion on the ignorant Egyptians, and travelled into Egypt to teach the natives the elements of geometry? How, I say, can this be believed, when it is confessed, that before the time of these itinerant mathematicians, the Greeks knew nothing of geometry, and consequently nothing even of its elements? Laertius plainly avows, that Thales was the first Greek who had any acquaintance with the science in question. Thus the Greeks inform us on one hand, that geometry was studied in Egypt from the most remote antiquity; and on the other, that at a much later period, when however the same science was totally uncultivated in Greece, a few Greeks arrived in Egypt, and taught the inhabitants of that country more than they had been able to teach themselves during the space of many centuries. Had the Greeks pretended, that their ancestors, before the time of Thales and Pythagoras, were skilled in the sciences, it would have been more difficult to combat their assertions. But this was a pretension which they could not make. Josephus

(Contr. Apion. L. 1.) has stated, and apparently without the fear of contradiction, that Pherecydes, Pythagoras, and Thales, learned all they knew from the Chaldeans and Egyptians. But here you turn on me cleverly enough, *Neomathes!* Such was the ignorance (say you) of both parties, five or six centuries before our æra, that it matters little who were the teachers, or who were the learners. Upon this point I must entirely differ from you; but we shall probably return to it in the course of this discussion.

Neom. Nay, it will be for you, *Philothoth*, to return to it, or not, as you please. I only mean to say, that at the period of which we have been speaking, geometry probably, and astronomy certainly, had not yet taken the form of science. You would not have me praise the dreams of Anaximander, of Anaximenes, or of Anaxagoras. Philolaus of Crotona had some ingenious ideas; but he could have made no great progress in astronomy, since he reckoned the length of the solar year at 364½ days. Considerable advances were, however, made in that science by Meton, Eudoxus, Calip-

pus, and other Greek philosophers. Eudoxus had written two works on astronomical subjects; and these works were afterwards versified by Aratus in a poem which still exists. Of the labours of Euclid as a geometer I need not speak. Thus the Greeks were still advancing to that degree of perfection in astronomy and geometry, to which they attained, when Hipparchus, *nunquam satis laudatus*, more fully instructed them by the discoveries which his genius had made. But if we turn to the Egyptians during this period, what do we find to prove that either art or science flourished in their country, until the Ptolemies encouraged both in the celebrated school of Alexandria? Then who were the ornaments and luminaries of that school? Not Egyptians but Greeks. One Egyptian, indeed, who was well skilled in Greek, wrote a poem in that language, in which he vaunted the astronomical skill of his countrymen. This poet, who was also a priest, was named Manetho. He speaks in lofty terms of Petosiris, whose doctrines he undertakes to expound in verse. Bailly thinks that he was jealous of the Alexandrian school,

and wished to contend against it; but an author not less distinguished than Bailly observes, that the combat was not equal; and that if the science of the Egyptian priests and of the celebrated Petosiris extended no further than that which Manetho has disclosed to us, it would have been better for their honour and his own, if he had remained silent. The only part of their astronomical system which does them credit, was their knowledge of the motions of the planets Venus and Mercury, which they considered as satellites of the Sun. It is however to be observed that we have the sole authority of Macrobius (Somn. Scipion. L. 1.) for attributing this discovery to the Egyptians. Had it really been made by them, we may wonder how it escaped the notice of Ptolemy. Achilles Tatius tells us, that "the Egyptians reckoned the planets in the following order,—Saturn, Jupiter, Mars, Mercury, Venus, the Sun, the Moon;" for he says he must be excused "for naming Mercury as the fourth planet, since the Egyptians differ widely in their manner of placing Mercury, Venus, and the Sun." In this whim-

*Orig.

sical distribution of the planetary orbs there is no appearance of the Egyptians having considered Venus and Mercury as *comites Solis.* But if the priests of Egypt did not make the discovery which is attributed to them by Macrobius, what can be said of the rest of their astronomical knowledge? May we not answer in the words of the celebrated Delambre; *tout ce que nous savons d'ailleurs de l'astronomie des Egyptiens ne prouve que l'ignorance de ces prêtres si vantés?*

Phil. The account which you have given of the state of astronomy in Greece, from the time of Thales to that of Hipparchus, is sufficiently accurate, though rather short and compendious.

Neom. Forgive me for interrupting you; but you could hardly expect me, in a conversation like ours, to enter into details, or to examine in all its bearings a subject which it would require a volume to discuss.

Phil. You mistake me, *Neomathes!* Your statement sufficed for the purpose of your argument. I agree with you in thinking, that astronomy did not deserve to be ranked as a science

among the Greeks before the time of Hipparchus. I will even allow to you that science had sunk to a very low ebb in Egypt, before the school of Alexandria was established. Plato and Eudoxus were indifferently repaid for their long stay at Heliopolis, if the priests of the Sun taught them no more, than to reckon the length of the solar year at 365 days and 6 hours. These priests ought to have known that the calculation was not precisely exact. With regard to the absurd poem called *Ἀποτελεσμάτικα*, and ascribed to Manetho, I leave it to your contempt; but I must protest against your concluding from this poem, that the ancient Egyptians were as ignorant of astronomy, as was unquestionably this Pseudo-Manetho; for if you consult Fabricius, you will probably do even Manetho the justice to exculpate him from the charge of being the author of this foolish work. But I proceed to another point. You are unwilling to admit the statement of Macrobius. For what purpose should that writer have attributed astronomical notions to the Egyptians which did not belong to them? He

himself had formed a different opinion, and it was not therefore for the purpose of doing them honour, that he explained Tully's sentence by the help of their philosophy. The silence of Ptolemy can hardly be thought extraordinary, if it be recollected that the doctrine of the Egyptians, concerning the planets Venus and Mercury, was in direct contradiction to his own. The passage in Achilles Tatius does not appear to me so important as to you. Besides stating the order in which the Egyptians ranked the planets, Tatius undertakes to tell us, how that people were accustomed to name them. Now, with one exception only, all the names which he mentions are Greek and not Egyptian. Thus he says, "both the Greeks and Egyptians called the planet Saturn *Phainon* (splendid) though really extremely obscure. It is so named on account of euphemy by the Greeks; but by the Egyptians it is denominated the star of Nemesis." *Phainon* is Greek and not Egyptian; and the name of Nemesis was unknown in Egypt. "The planet Mars," says he, "is called *Pyroeis* by the Greeks, but the Egyptians denominate it

the star of Hercules." The name of Hercules in Egypt was *Dsom*, or *Chom*. The same writer adds, πέμπτος ὁ τῆς Ἀφροδίτης, παρὰ μὲν Ἕλλησιν ἑωσφόρος, "the fifth, the star of Venus, is called by the Greeks the bringer of the dawn." Here the Egyptian appellation seems to be forgotten altogether; and really if we were to be dismissed with another Greek name substituted for the original, the loss is not much to be lamented. I argue from all this, that Achilles Tatius did not understand the Egyptian language, and must have been deceived by his interpreter, since Osiris is the only Egyptian name to be found in his list. How then can we trust to what he says of the order in which the planets were ranked? If you will turn to the Old Chronicle, you will there find it stated on the authority of Manetho, that the Egyptians called Saturn *Lampon*, Jupiter *Phaethon*, Mars *Pyroeis*, Venus *Callistus*, and Mercury *Stilbon*. It is clear that these names are likewise Greek; and can only be considered as translations from the original Egyptian. But in this list the names of the planets occur in their proper order. Julius

Firmicus, in speaking of the planets, says, *has stellas non eodem nomine, quo nos, aut Græci, Ægyptii nominant. Nam a nobis Saturnus dicitur, ab Ægyptiis Φαίνων vocatur. Quem nos Jovem vocamus, Ægyptii Φαέθοντα vocant: Qui a nobis Mars, ab illis Πυρόεις dicitur: Quæ a nobis Venus, ab illis Φωσφόρος vocatur: Quem nos Mercurium dicimus, illi Στίλβοντα vocant.* It is strange that so many writers should have thus given Greek for Egyptian names; but it is more to my purpose to observe, that Achilles Tatius is singular in his statement concerning the order in which the Egyptians placed theplanets. Neither do I think it improbable, that he gave his account from having misunderstood the very same theory which Macrobius has explained.

Neom. Upon the authority of Achilles Tatius I am not inclined to insist. But you have acknowledged, *Philothoth*, that science was reduced to a low ebb in Egypt, before the establishment of the school of Alexandria. Do you really mean to say, that the sciences had ever flourished in Egypt previously to that epoch? If you do, I must ask for your proofs.

We know what to think of the mathematical and astronomical skill of the Greeks. Many of their works exist to attest their talents and their knowledge. But what, or where, are the remains of Egyptian science? What is there to show, that the pretended sages of Memphis knew more than what common observation might teach, or than what common capacity might learn? At what period of her history did Egypt shine in the zenith of her literary glory? I speak not of the fine arts. They never flourished on the banks of the Nile. Hermes may have invented the lyre, but he left it to be sounded by the Muses of Greece. I enquire not for the architects, the sculptors, the painters, the poets, or the orators of Egypt; but I ask who were the mathematicians, the astronomers, and the philosophers of that country? Has Isis flung her veil over their names? If the Egyptians had made any brilliant discoveries in science, how came none of these to be recorded? We know little or nothing of their scientific acquirements, before the time when the priests of Heliopolis gave lessons in astronomy to Plato and

Eudoxus; and you yourself, *Philothoth*, seem to attach little value to the most important part of the information which was communicated to those illustrious strangers by their Egyptian masters.

Phil. I am well aware that in declaring my own opinion with regard to the ancient Egyptians, I shall speak in opposition to the prevailing notions at the present day. I trust, however, that you will listen to me with that candour, which is rarely wanting in those who argue, not for the sake of victory but of truth. You say you will require the proofs, by which I can show, that science once flourished among the native Egyptians, and before the time of the Ptolemies. But the proofs, with which I am satisfied, may not appear convincing to you. Men form very different notions of the value of evidence, otherwise we should not have so many disputes in the world; and this principally results from our various habits of thinking and modes of reasoning. Probabilities will often suffice to convince the moralist, the lawyer, and the politician, while the mathemati-

cian hesitates over evidence that is less than apodeictic, and while the judgment of the logician remains suspended between the horns of a dilemma. But the truth is, that the value of testimony must be often estimated by the nature of the subject to which it is applied; and those, who do not sufficiently attend to this consideration, become thence unfit in many instances to pursue the investigation of truth. Who would listen to a dialectician in a school of science; or who would wish a geometer to decide on a case of murder in a court of justice? The truth would escape, while the former was employed in splitting hairs in order to catch it; and the culprit would rejoice, while the latter declared the existence of the crime to have been but imperfectly demonstrated. If a question be worth examination, we must be satisfied with the nature of the evidence which we can obtain concerning it. The cautious antiquary, who always speaks on historical authority, and who trusts even to that authority, only where it can scarcely be controverted, naturally condemns researches, which refer to times far remote from

our own. Such enquiries may perhaps be still more despised by the mathematician and the natural philosopher. The man of demonstration turns from a conjecture, however probable, in saying, *hypothesin non fingo;* and the man of experiment wonders how any one can listen to any thing but undisputed truths, known events, and positive facts.

It appears from the general testimony of the Greeks, that the Egyptians were already proficients in the sciences, and particularly in the science of geometry, at a very remote period of antiquity. I think it unnecessary to give you a long list of authorities, which would begin with that of Herodotus, and which would not end with that of the same Achilles Tatius, of whom we have been lately speaking, and who lived five centuries after the father of history. If we believe the assertions of the Greeks, we can scarcely question the learning of the Egyptians. I now turn to the Hebrew scriptures. I find from them that the Egyptians were already a refined and polished people, several centuries before the Greeks had emerged from barbarism.

Previous to the time of Thales and Pythagoras, not a ray of science had shone upon Europe. I am, therefore, obliged to conclude, that those celebrated persons were instructed by the Egyptians, and not the Egyptians by them.

Now this point would be hardly worth contending for, if neither party knew more than some elemental parts of astronomy and of geometry. You cannot be ignorant, that the Pythagoreans announced the existence of an astronomical system, which the philosophers of Alexandria rejected, but which those of modern Europe have now universally adopted. The Samian sage must have acquired his knowledge of this system in Egypt and the East, and have communicated it to his disciples at Crotona, when he established his school in that city.

Neom. I am surprised, *Philothoth*, that you should venture on the course of argument which I see you are now pursuing. It is true, that Pythagoras and his disciples talked of the Sun as being in the centre of the planetary system. They did more. They affected to measure the distance between the earth and the Sun and Moon; to deter-

mine the magnitude of those orbs; and to calculate the periods of the revolutions of the stars and planets. They gave hints of a plurality of habitable worlds. They seem really to have been men of talents, and to have occasionally made some happy guesses. But if we talk of science, what can be so contemptible as their calculations? We find them stumbling at every step, and blundering out of one error into another. What can be so absurd as the doctrine of Pythagoras with respect to the music of the spheres! How could it come into the mind of a man of sense, to suppose that the distances between the planets answered to certain tones and demi-tones, and that the whole space between the earth and the fixed stars was equal to the great diapason? But the worst of all this is, that the distances between the planets, as expressed by this whimsical illustration, are totally incorrect. The distance of Venus from the Sun is equal to a tone and a half, while one tone is judged sufficient to denote the distance of the Sun from Mars. How is it possible to consider this specimen of trifling and ignorance, and still

to call Pythagoras an astronomer? Can we entertain more respect for the astronomical learning of Philolaus, who said that the Sun was a glass disc with a fire behind it; or for that of Empedocles, who held that it is the Sun's image, and not the Sun itself, which is visible to our eyes? These, with other *anilia*, are attributed by Plutarch to the Pythagoreans. You must, therefore, excuse me, if I deny that they have any claims to be ranked with such men as Hipparchus and Ptolemy.

Phil. I am not at all disposed, *Neomathes*, to speak of the Pythagoreans as of learned astronomers. But as their master left no writings behind him, it seems scarcely fair to judge of him from authors who did not understand his system. I shall, however, easily admit, what I believe to be true, that Pythagoras possessed very little science; and this is precisely one of my reasons for thinking that he must have gleaned some of his information from those who possessed a great deal. Nothing is more simple than that a man, who is not master of his subject, should make mistakes. But I ask of

you, who are a calculator, if a man, who knows little or nothing of calculation, is likely to be right, or nearly right, by guess, in various examples? Is it within the range of ordinary probabilities, that a stranger to science should accidentally stumble, not only on one, but on several scientific truths, which are any thing but obvious to the ignorant enquirer? The proofs, which you bring of the ignorance of Pythagoras, only serve to confirm me in the belief that his philosophy was always erroneous, except where it was borrowed. What would be your conclusion, if you heard a stranger announce some important scientific truths mixed with many palpable errors? You would naturally say, here is a man who has got some glimmerings of reason, and has picked up some knowledge from the conversation or the writings of others, but who after all is really no better than an ignorant empiric. You would scarcely dream of attributing any important and scientific discoveries to such an empiric; nor would you say, that the truths which he had announced were happy guesses of his own. It appears from his

biographers, that Pythagoras was extremely ill received by the priests of Egypt. Those of Heliopolis referred him to their brethren of Memphis, who in their turn sent him to study in the sacred college at Thebes. There the adventurous stranger suffered all the tortures, and encountered all the perils, of initiation. He was then instructed, if we believe the Greeks, in the mysteries of Egyptian learning; and Sonchis, the high-priest, condescended to become his preceptor. But this account is extremely improbable. The priests of Egypt were aware, if ever any set of men were acquainted with the maxim, that knowledge is power. The higher classes of the priesthood were extremely cautious, how they communicated information to the younger and lower orders of the hierarchy; and these again were not less reserved in their intercourse with the rest of society. The numerous and dangerous ordeals, through which the priests had to pass, and the long term of years allotted for their apprenticeship, sufficiently prove the truth of the statement which I have just been making. Every step by which the

aspirant advanced, was preceded by a new trial of his patience, and a new proof of his fortitude. Before he passed into darkness, and when again he returned to the light, the object which still met his eyes, was the image of the God whose finger is on his lip. Silence and secrecy were the first duties taught to the aspirant. He might listen, but he might not speak. If he heard a voice, it addressed him in the language of mystery. If he received information, it was conveyed to him through the medium of tropes and symbols. Now I ask, if under the influence of such a system as this, you can really believe, that the hierarchs of Egypt would have instructed a person not belonging to their order, a stranger, who did not worship the same Gods with them, a Greek too, in all the science and learning which they themselves possessed? Pythagoras might have been acquainted with the exoteric doctrines of the priests of Thebes. He might have even obtained some glimpses of their esoteric doctrines; and thus he might have announced some of the truths which modern science has confirmed. But truths which science

only can confirm, are truths which science only could have discovered. Mark well this observation, *Neomathes*, and then answer, if you can, the statement which I am about to make.

Pythagoras was acquainted with the obliquity of the zodiacal circle. (Plutarch. de Placit. Philosophor.) The Moon, according to the same philosopher, receives her light from the Sun; and it is only when that light is intercepted by the Earth, that the Moon suffers an eclipse. (Diog. Laert. L. 8. Stob. L. 1. and Plutarch. in Loco citato.) The lunar orb resembles the Earth; like it is diversified by mountains, valleys, and seas; and like it is inhabited by animals. (Plutarch. de Facie in Orbe Lunæ. Stobæus, L. 1.) It even appears from a passage in Plutarch, who probably did not clearly understand what Pythagoras had intended to say, that this philosopher reckoned one lunar day as equal to fifteen of ours, which estimation is nearly accurate.

The disciples of Pythagoras spoke out more plainly than their master; divulged some of his secret doctrines; and expounded some of his

theories. Philolaus taught, that the Sun, or the fire as he called it, was situated in the centre of the universe. (Plut. ibid.) Cicero thus states the opinion of Nicetas of Syracuse, who was a Pythagorean—*Nicetas Syracusius, ut ait Theophrastus, Cœlum, Solem, Lunam, stellas, supera denique omnia stare censet, neque præter terram rem ullam in mundo moveri: quæ cum circum axem se summa celeritate convertat et torqueat, eadem effici omnia, quasi stante terra cœlum moveretur, atque hoc etiam Platonem in Timæo dicere quidam arbitrantur, sed paullo obscurius.* (*Academ. Quæst.* L. 4.) Here the diurnal motion of the earth is clearly described. Plato is said by Plutarch to have come over in his old age to the opinion of the Pythagoreans. Now Plutarch thus states their doctrine in his life of Numa: "The Pythagoreans," says he, "think that the Sun occupies the middle of the universe; that the Earth is carried by a circular motion round the central fire; and that it is far from forming a principal part in the universal system." There is a passage in Aristotle (de Cœlo) perhaps yet more remarkable. "The Pythagoreans say that the fire (the Sun) is in the middle, and that the

Earth is one of the stars, being carried round the centre, and thus (as it revolves on its axis) producing night and day."

Some of the guesses, as they have been called, of the Pythagoreans appear very extraordinary. They taught, that the Moon's diameter is about a third of the Earth's. This guess was erroneous, but it was a wonderful guess, since the Moon's diameter is greater than a fourth of the Earth's. Again, they said that the Moon's mass was to that of the Earth as 1 to 72. It is strange that Goguet should cite this calculation as a proof of their ignorance. Bernouilli calculates the difference at 1 to 71. They appear to have had pretty just notions of the periods in which the planets make their revolutions; but as Plutarch, who gives the statement, speaks in round numbers, we cannot judge whether or not the calculations approached to precise accuracy. The assertion of Seneca (Nat. Quæst. L. 7. c. 3.) is therefore scarcely credible, when he says that Eudoxus was the first who made the Greeks acquainted with the existence of the five great planets. We may, I think, safely reclaim this honour for the Pythagoreans. Anaximander is

said to have been the first Greek who determined the periods of the solstices and equinoxes. (Diog. Laert. L. 2.) But the statement of Eratosthenes, with regard to the distance of the Earth from the Sun, as it is understood by some writers, merits far more attention. If we follow the interpretation which Xylander gives of a passage in Plutarch (de Placitis Philosophorum) we shall estimate that distance at 804,000,000 stadia; and if these were Olympic *stadia*, we shall find that Eratosthenes made very nearly the same calculation with our modern astronomers. I am aware that Xylander's reading of the text is disputed; but I can hardly think that if the text in Plutarch be corrupt, it is to be mended by the help of the parallel passage in Stobæus, in which the distance is estimated at 40 billions of *stadia*. I refer you to Bailly upon this subject; and likewise to the same writer for an explanation of that curious passage in Aristotle (de Cœlo), where it is stated that the mathematicians estimated the Earth's circumference at 400,000 *stadia*. I shall only add to what he has said, by remarking that the short *stadium* of 330 feet was a Chaldean as well as an Egyp-

tian measure, being equal to the 10th part of a short Chaldean mile, and to the 60th part of an Egyptian schœnus; and that therefore there is nothing extraordinary in its being employed by mathematicians and astronomers, who derived their science from a master who had studied in Egypt and in Chaldea. This remark obviates the most important objection which has been made to Bailly's argument.

There were other branches of astronomical knowledge, with which the Pythagoreans seem to have been tolerably well acquainted. "The Pythagoreans," says Aristotle, (Meteorolog. L. 1.) "held a comet to be a planet, which appears after a long interval, and which, at the apex of the hyperbola which it describes, approaches as nearly to the Sun as the planet Mercury." Pliny (L. 2.) pretends that Pythagoras discovered Phosphor and Vesper to be the same star; and he fixes the date of this discovery for the 42nd Olympiad, 612 years before our æra, when it may be well questioned whether Pythagoras were yet born. We have seen from Macrobius, that the Egyptians held Venus and Mercury to

be satellites of the Sun; and Pythagoras probably learned this truth in Egypt. It follows that the two planets are both morning and evening stars; and if the Egyptians taught Pythagoras that this was only the case with regard to Venus, they did not teach him all they knew. A passage in Stobæus indicates, that the opinion was peculiar among the Greeks to the Pythagoreans.

You must now admit, that Pythagoras, for I attribute all the sane opinions of the disciples to the master, was a very extraordinary man. There is no example, either before or since, of so many important scientific truths having been discovered, or of so many calculations nearly accurate having been made, by a person, who really possessed so little knowledge, and was so little advanced in mathematics and astronomy, as we are both agreed was the case with Pythagoras. To speak fairly, the fact appears to be so singular, so contrary to all experience, that I doubt its existence; and yet if the fact be not true, how can we avoid believing that Pythagoras, in these examples at least, made no

guesses at all, but had imported into Europe the fragments of a system which was taught in Egypt and Chaldea, and which he himself but very imperfectly understood?

Neom. I have listened to you, *Philothoth*, with all the attention which you could require. I care not whether you refer the discoveries, as you call them, to the Chaldeans, the Egyptians, or the Pythagoreans. Among the numerous conjectures which were made, it is not surprising that some should be right, or nearly right, as you cautiously state it. But these conjectures were not built on science. It is impossible that they should have been. Hipparchus was the first astronomer, who knew the method of taking the parallax of a planet; and to him is attributed the invention of trigonometry. He was likewise the first who was acquainted with the precession of the equinoxes. After having made this statement, I conceive it unnecessary to say another word of the science of those who preceded him.

Phil. You forget, that you are taking for granted some points, which I am by no means disposed to concede to you.

Hipparchus, you say, was the first who discovered the method of taking a parallax, who invented trigonometry, and who was acquainted with the precession of the equinoxes. He was among the first, if not the first, who opened these paths to the Greeks; but it does not thence follow that these paths had never been known to the philosophers of Egypt and the East. Is it quite clear, that Pythagoras had no notion of the method of taking a parallax, and that his masters in science had not shown him any such method? We cannot surely trust to what writers, who lived many centuries after him, have told us of his system of harmony, which it can scarcely be supposed they understood. Neither ought we to trust to reports, which represent him as assigning distances between the Earth and the celestial bodies, totally removed from the truth. These might have been opinions expressed in public; but Pythagoras, like his masters in Egypt and Asia, had his double doctrines. I mean not thence to say, that Pythagoras was as fully instructed as those

masters; but he might have communicated secretly to his disciples methods of taking the parallaxes of the Sun and Moon by the help of trigonometry. This conjecture appears to me to be founded on probability; nor does it imply, that Pythagoras is therefore to be called a scientific astronomer. He of course obtained his information from men of science, but he might have repeated their lessons without fully possessing their knowledge, and without clearly understanding their principles. I must, however, proceed to justify my conjecture. Aristarchus, an astronomer of Samos, flourished about a century before Hipparchus. He belonged to the school which had been established by his celebrated countryman Pythagoras; and he had no doubt opportunities of being well acquainted with the traditions of that school, since Pythagoras taught his philosophy some years at Samos, before he retired to Crotona. The prudence of this philosopher in concealing some of his doctrines is manifest from the fate of Aristarchus, who was cruelly persecuted for publishing them. Now among the publications of this

astronomer was one concerning the distance of the Sun and Moon, which still exists. From this work it clearly appears, that Aristarchus was acquainted with a method of taking parallaxes. He reckons the distances of the celestial bodies from the Earth by semi-diameters of the Earth; and this alone shows that he was acquainted with the principle upon which the method is founded. It appears from a passage in Plutarch, (de Facie in Orbe Lunæ) which has been generally understood to refer to Aristarchus, that he had determined the distance of the Moon from the Earth with greater accuracy than any other ancient astronomer. He also seems to have approached the truth more nearly than could have been expected in measuring the Sun's diameter, which he estimated at the 720th part of his orbit. But the method proposed by Aristarchus for measuring the Sun's distance from the Earth could only have been invented by a scientific astronomer. The objections, which are made to it at this day, are rather practical than theoretical. If three straight lines unite the centres of the Sun, the Moon, and the Earth,

they will form a triangle. If the angles are known, the relative proportions of the sides of the triangle will be known, and consequently the proportions of the distances between the centres of the Sun, the Moon, and the Earth. The three angles of a triangle are equal to two right angles; and if two angles be known, the third can be determined. The angle, which is formed by the visual rays from the Earth to the Sun and Moon, can be measured by means of an instrument. But the other two angles are still to be determined. It was found that one of these angles could only be a right angle, when the half of the Moon's disc appeared illuminated to the eye of the observer, because it is obvious that it is only then that a straight line passing from the centre of the Sun to that of the Moon could form a right angle with a straight line passing from the centre of the Moon to that of the Earth. The theory of this method presents no difficulties; but in practice many objections are to be made to it. Now you will observe, *Neomathes*, that the inventor of this method must have been acquainted with trigonometry. But it is

said, that Aristarchus in explaining the principles upon which it is conducted, avails himself of no aid from trigonometrical calculations; and as this has been said by a very high authority, (I mean M. Delambre,) I am bound to believe it, until I hear an answer to that authority. I would, however, ask, how in this case we can believe Aristarchus to have been the inventor of the method? The instruments, which he employed, appear to have been very indifferent, as Archimedes, who lived shortly after him, has intimated. He erred greatly in estimating the Sun's distance from the Earth; but this might have happened to better astronomers with better instruments, if they followed the same method. It is more difficult to understand, how he measured the Moon's distance from the Earth with so much exactness, and how he managed to ascertain so nearly the length of the Sun's diameter. Archimedes, who mentions this measurement, seems to question the skill of the observer, and expresses his want of confidence in the instruments which were employed. Thus it appears that Archimedes, surely no incompe-

tent judge, had no high opinion either of Aristarchus, or of the instruments which he employed. But the discoveries which Aristarchus announced were many and important. May we not suspect then with good reason, that he endeavoured to put to the test of experience certain astronomical opinions, which were handed down as traditions among the Pythagoreans? Can it really be supposed, that he was the inventor of the method of measuring the Sun's distance from the Earth, without being acquainted with trigonometry, when that method is entirely built upon trigonometry? I must therefore suppose the method to have been invented by a scientific astronomer, long anterior to the time of Aristarchus, who flourished nearly 100 years before Hipparchus. You likewise assert, that Hipparchus was the first who was acquainted with the precession of the equinoxes. If you spoke only of the Greeks, I should agree with you; but I maintain that the Orientalists knew the precession of the equinoxes not only sooner, but better than ever Hipparchus did. The Arabian astronomer Albatenius says that

the Chaldeans reckoned the length of the sideral year at 365d. 6h. 11′; and Montucla, who surely cannot be suspected of partiality for the Chaldeans, puts it as a question, whether it may not be concluded from this, that they were acquainted with the progression of the fixed stars. The same writer seems to think, that they reckoned this progression at about 69 years for the degree. Now this calculation was much more exact than that of Hipparchus and Ptolemy, who reckoned the progression at 100 years for the degree. But if you will turn to the second volume of the Asiatic Researches, you will perhaps see reason to think, that the calculation of the Brahmans was nearly exactly accurate; as they appear to have reckoned the progression at 71 years for the degree, and indeed according to some, at 72 years.

Neom. It is really strange, *Philothoth*, if the Chaldeans and Egyptians had possessed all the astronomical learning which you ascribe to them, that they should not have taught it to the Greeks. According to Syncellus, Ptolemy Philadelphus had collected 100,000 volumes, comprising

Greek, Chaldean, Egyptian, and Latin books, (those in the three last languages being translated into Greek,) in the library of Alexandria. How came Ptolemy, the philosopher, not to avail himself of the stores of astronomical knowledge which this library ought, according to your account, to have contained?

Phil. You forget that the library collected by Ptolemy Philadelphus was burnt before Ptolemy the philosopher was born. I notice this little mistake, because it has been inadvertently made by a man of acknowledged talents, and of profound science, in a late publication.

Neom. Ptolemy, however, consulted the books of the Chaldeans, and found little to satisfy a scientific astronomer. But the library of Alexandria existed in the time of Hipparchus. Is it not strange, that that great man should not have availed himself of the treasures it contained? When, for example, he was embarrassed in determining the length of the sideral and tropical years, why had he not recourse to the volumes which recorded the discoveries of the ancient astronomers of Egypt? Why did

he leave those volumes untouched on the shelves of the Alexandrian library? Why did he not borrow the Hermaic books on astronomy from the Horoscopus and Hierogrammateus?

Phil. It is little probable that the best books of the Chaldeans on any subject remained in existence in Ptolemy's time; and I shall presently state the reason. I may observe, however, that this astronomer might have made a better use than he has done of the cycles called the *Neros* and the *Saros*, and that he might have profited by some of the opinions which even common report attributed to the Chaldeans. With respect to Hipparchus, my answer is not difficult. The Hermaic books of philosophy were, if we believe Clemens Alexandrinus, only 36 in number. They were therefore not likely to occupy much space in any library. But if the original Hermaic books had been honoured with a place in the library of Ptolemy Philadelphus, how did they escape the fire? How came they to be in existence in the time of Clemens? There might have been copies. Certainly; but who can doubt for a moment, that these pre-

tended Hermaic books were forgeries, composed long after the utter decay of Egyptian literature? You ask, why Hipparchus did not consult the archives of Egyptian science? I answer, because all such archives were destroyed before his time. The Persians had not been satisfied with the conquest of Egypt. They contemplated the monuments of her learning with fanatical horror, and destroyed them with fanatical zeal. They persecuted the priests, and drove them from their sanctuaries; and these men, who were the only depositaries of the learning of their country, forgot in process of time the signs, and symbols, and enigmas, by which that learning had been formerly taught to the initiated.

Neom. You labour under a great error, *Philothoth*, since we can prove from Greek inscriptions, as well as from inscriptions in the sacred and enchorial characters, that the Egyptians possessed the same knowledge, and practised the same arts, under the Ptolemies, as they had done under the Pharaohs.

Phil. You have the advantage of me. I

have made no great progress, I confess, in my attempts to read the sacred and enchorial characters. The Greek inscriptions prove that the Egyptians continued to adore their ancient deities; that the Ptolemies, and afterwards the Cæsars, caused several temples to be repaired, and additions to be made to them, in the old style of architecture; that hieroglyphs were inscribed on the walls, and were in some instances composed to express the names of monarchs and their wives; that Greek workmen were generally employed on these occasions; and that the inhabitants of the district had frequently to pay the expences. Thus far the Greek inscriptions give us information. With respect to literature and science, they say nothing, and prove nothing.

Neom. But we learn from the phonetic characters, which still exist on many ancient monuments, the names of the princes, during whose reigns those monuments were constructed. We know, for instance, that the temples of Esneh and Denderah were built in the time of the Cæsars; and this knowledge obliges us to smile at the dreams of those, who have pretended to

fix the dates of the zodiacs found in those temples at 7, or 13, or even 25 centuries before the Christian æra.

Phil. You speak, Neomathes, on the authority of a very able and ingenious writer; but he seems to me to be totally mistaken upon the point in question. It may be at once admitted to him, that the temples were built, and the zodiacs painted, in the times of the Cæsars. Nay, that allusions were made to them, and that their names appear among the hieroglyphs. What I contend for is this, that the zodiacs, in the temples mentioned above, were copied from others of ancient date. Thus the original scheme of the round zodiac of Denderah must have been formed at least 7 centuries before our æra. Try any projection of the sphere, which will correspond with the monument at a later date.

Neom. You admit, however, that the art of writing both in hieratic and in enchorial characters was preserved from the times of the Pharaohs to those of the Roman Emperors.

Phil. This is not admitting much. The art of writing may be preserved, when all the know-

ledge which is worth communicating is lost. It is not extraordinary, that the demotic characters were preserved. They were in daily use. The sacred characters were also preserved; but of these, as you may see from Clemens Alexandrinus, there were different kinds; and some bore different senses. There was the exoteric sense of the symbol understood by the many—there was its esoteric sense understood by the few. Was not this last sense lost before the time of the Ptolemies? It is in vain to deny the moral, political, and literary degradation of the Egyptians after the time of Cambyses. The persecution carried on against that people by their conquerors lasted for 40 years, without intermission. It was again renewed after a short interval. The vengeance of the Persians was directed against the religious and philosophical opinions of the Egyptians; and their symbols and images were every where mutilated and destroyed by those relentless iconoclasts, who considered idolatry as an insult to the glory of Mithras, of whom fire was the only legitimate emblem. Thus all the monuments of Egyptian

learning and science were doomed to destruction. The philosophical spirit of Egypt perished with her political power. "Her wise counsellors became fools;" and she herself became "the basest of nations." It was the superstition, and not the science, of Egypt, that survived the iron rule of her Persian despots.

Neom. But is it not idle to speak of the Egyptians and Chaldeans as of mathematicians and astronomers, without being able to show, that they had mathematical and astronomical instruments? The Egyptians seem to have known no instruments for taking observations, unless you so call their gnomons and sun-dials. The scientific instruments employed in the school of Alexandria were invented by the Greeks themselves, who appear to have found none among the natives of the country. Timocharis and Aristillus made use of the armillary sphere; Eratosthenes employed the *dioptron;* and Ptolemy improved the construction of the *astrolabe,* of which Hipparchus was the first contriver. The *clepsydra* was invented by Ctesibius; and Eudoxus constructed sun-dials upon

a new plan, and in a more accurate manner than had ever been done before his time. Thus the native Egyptians appear to have possessed no astronomical instruments before the time of the Ptolemies, unless indeed, as I before said, you reckon their gnomons and sun-dials as such.

Phil. Without referring you, *Neomathes*, to the armillary spheres, which, according to the Greeks, were invented by Atlas, Hercules, and the centaur Chiron, I think I may safely venture to assert, that all the instruments which you have mentioned, had been long in use before the existence of the school of Alexandria. If the Chaldeans and Egyptians had possessed no instruments for taking observations, how could they have made any progress at all in astronomy, or have merited any portion of that reputation which they obtained among the Greeks themselves? Had no such machines as armillary spheres existed before the foundation of the Alexandrian school, how came the Greeks to refer their invention to the fabulous ages? This seems to prove, that these spheres

had been in use from remote antiquity. The *aranea*, as the sun-dial employed by Eudoxus was called, may have been an improvement; but you are not ignorant, that sun-dials were known even to the Jews, (not a very scientific people,) four centuries before the time of Eudoxus. It is in vain to call Ctesibius the inventor of the clepsydra. This instrument was exhibited under different forms, as appears from Vitruvius, who has described several clepsydras that were in use; but the most simple form was probably invented at a very early period. According to Sextus Empiricus, the Chaldeans employed the clepsydra when they first divided the zodiac. Macrobius says the same thing of the Egyptians.

I can easily admit to you that the Greeks, after the time of Alexander, found but few mathematical and astronomical instruments in Chaldea and in Egypt. I will further admit that those instruments were very imperfect, and were greatly improved by such able men as Eratosthenes, Ctesibius, Hipparchus, and Ptolemy. But I must at the same time conclude,

that the instruments, which were thus found, were such as had never been greatly valued. Under the ancient Egyptian and Babylonian monarchies, the general diffusion of knowledge was the very last thing, to which the priests, the only possessors of knowledge, would have given encouragement. If any valuable instruments had formerly existed, we may be pretty sure that they were to be found only in the colleges of the priests, or in the observatories committed to their care. It is also to be observed, that the astronomical instruments, employed by the Egyptians and Orientalists, and indeed by the Greeks, were on a much larger scale than ours. This must have rendered them very expensive. But the general ignorance of all orders of men, with the exception of the priests, and the care and caution with which these last concealed their knowledge from the public, sufficiently account for the general want of such instruments as the geometers and astronomers of Greece might have sought for in vain among the Egyptians and Chaldeans.

It may be said, that we hear nothing of any

instruments of science in the museums or observatories of the Egyptians, unless it be the golden circle of Osymandias. This circle was probably rendered famous by its metallic value. A quarter of a cubit added to its circumference would have increased not a little its scientific value. But because we hear only of this golden circle, are we to conclude that the Egyptians had no more accurate instruments? The Greeks speak of no other. It was not likely that any other should have attracted general attention. A circle of gold one cubit and a half in breadth, and 365 cubits in circumference, would probably be more spoken of, did it now exist in modern Europe, than all the instruments of Dolland and Ramsden. Cambyses is said by Diodorus Siculus to have sent the golden circle into Persia. Its metallic worth probably procured it that honour. But can we believe that the Persians spared the Egyptian observatories, which must have been full of those symbols which they held in religious horror? While the hand of destruction was busy in de-

molishing temples and palaces, it was not likely to pass lightly over the sacred colleges; nor while the work of ruin was going on, and it went on for 40 years, is it probable that the instruments of science were more respected than the monuments of art.

Neom. After all that you have said, *Philothoth*, you have only advanced a conjecture, and a conjecture which must always remain one.

Phil. Men differ only about their opinions and conjectures. Nobody questions an axiom; nobody disputes a demonstrated truth; nobody denies a well-known and well-attested fact. As long as you move within the circle of certainties, you will quarrel with no one. But unfortunately this circle is narrow; and the human mind is continually stepping beyond its bounds.

Neom. Your observation is just; and where conjectures are reasonable, they will always meet with attention. No moral reasoner will refuse to listen to an opinion which seems to be founded on probability. Neither will an anti-

quary hastily reject a conjecture, which appears to be supported by historical evidence. When you pretend, that the Egyptians and Chaldeans possessed astronomical instruments of any value in science, you ought to be able to support your conjecture by testimony. Instead of this, you argue in a circle; contend that they were profound astronomers; and then insist, that since they were so, they must have possessed accurate astronomical instruments.

Phil. I acknowledge, *Neomathes,* that no historical testimony directly tells me, that the ancient nations in question possessed any valuable instruments to serve the purposes of the astronomer. There is however abundance of evidence to prove, that the Pythagoreans had acquired the knowledge of certain scientific truths from the Egyptians and Orientalists, which truths could not have been obtained without accurate observations made by the assistance of accurate instruments. It is possible, indeed, that Pythagoras brought instruments with him, when he returned from Egypt to Samos; but it is still more likely, that the scientific truths

which he announced in private, and which his disciples afterwards taught in public, were all the stores which he carried home with him; nor is it easily credible, that the Egyptian priests would have presented him with any scientific instruments, which might tend to spread that knowledge which they wished to confine to the precincts of their own colleges. But the disclosures made by the Pythagoreans plainly show, that the chief of their sect must have been instructed by astronomers, who employed accurate instruments. Aristarchus, a native of Samos, repeated many things which came clearly from a scientific source. He stated the Sun's distance from the Earth at 1064 semi-diameters of the Earth. This calculation is no doubt very erroneous; but it must have been made by some person who was not altogether ignorant of the method of taking a parallax. He who taught Pythagoras, (for these statements must have come down from him to Aristarchus,) the distance between the Moon and the Earth, must have known better how to take the parallax of that orb, since he estimated the distance

at 56 semi-diameters of the Earth, and the real distance is no more than 64. Aristarchus announced, that the Earth is but a point in the universe; that it is spherical, and turns round on its own axis, moving in the oblique circle of the zodiac, while the heavens are at rest. He likewise taught, that the Sun is a fixed star, and that the fixed stars are Suns. Empedocles, the scholar of Pythagoras, affirmed, that the distances of the fixed stars from the Earth, as well as their magnitudes, could not be determined. This must have come originally, I should think, from those who had taken the parallaxes of the planets, but had not succeeded with the fixed stars. Now after this statement, how is it possible to believe, that the Egyptian and Chaldean masters of Pythagoras were men without science, who had no other astronomical instruments than a clepsydra and a sun-dial?

The Greeks in vain attribute to Meton the cycle which goes by his name. It was known ages before his time. The cycles, called the *Neros* and the *Saros*, do honour to the Chaldeans. According to Cassini, the inventors of the former

cycle reckoned the length of the solar year at 365d. 5h. 51′. 36″.; and thus made it too long by 2′. 48″. The celebrated M. de Lambre lessens the error to 1′. 36″. Thus the inventors of the cycle of 600 years had calculated the length of the solar year with an exactness which was not equalled by Hipparchus and Ptolemy, who made it nearly 5′. longer. M. de Lambre says, indeed, that the invention of this cycle supposes no science. I shall only answer by observing, that this remark supposes some prejudice. Just conclusions can be drawn only from accurate observations, and accurate observations in astronomy can be made only with the help of good instruments. There is no evidence, you say, of the existence of such instruments either at Thebes or at Babylon. There is no direct evidence, I admit; but I have produced testimonies from which direct inductions, equal to any evidence, may be drawn. Those Egyptian priests who employed the canicular year, and who invented the Sothic period, could not have been much mistaken about the length of the tropical year. With regard to the Chal-

deans, it is admitted by Montucla, that they had calculated the length of the solar year at 365d. 5h. 49′. 30″. Can it be reasonably supposed, that men thus far advanced were not furnished with tolerably accurate astronomical instruments?

Neom. Why really, *Philothoth*, your enthusiasm in favour of the Chaldeans and Egyptians is such, that I believe you would not hesitate to attribute to them the knowledge of algebra, and even of fluxions and the differential calculus.

Phil. You are severe upon me, *Neomathes*. You must admit, however, that the elements of algebra were taught at Alexandria; and how can we be certain, that the knowledge of these elements was not preserved amidst the wreck of Egyptian science? On this subject I leave you to your own conjectures. You must not, however, too hastily assume, that none but the moderns could have been capable of inventing such modes of calculation as you have named. The admirers of Indian science, as it appears from the Asiatic Researches, give us reason to

think that the ancient Brahmans employed a mode not dissimilar to the differential calculus. But I affirm nothing upon this subject. You may discuss it with those who can unlock the stores of Hindu science. You will perhaps find their pretensions more difficult to be set aside than you are at present aware. Great empires were established in the East soon after the deluge, and continued to flourish for many centuries. The history of those empires is but imperfectly known to us. Are we quite justifiable in holding, that the ancient Orientalists had made no progress in the exact sciences? They may have expressed numbers and quantities by conventional signs, the use of which is now lost; though we have derived our arithmetical figures from the Arabians, who appear to have originally borrowed them from the Hindus.

Neom. You still continue to wander, *Philothoth*, in the wide region of conjecture. You will perhaps tell me next that your Chaldeans, Hindus, and Egyptians, were acquainted with the doctrine of gravitation.

Phil. Well, *Neomathes*, and if Pythagoras

obtained his information among the ancient nations of which I have been speaking, it would seem that they taught a doctrine not very unlike to Newton's. The principles of love and discord, of which the Pythagoreans said so much, were not very dissimilar to those which the moderns call attraction and repulsion. It clearly appears from Plutarch's statement, that they were aware of the tendency of all material particles to a common centre. Aristotle, who certainly was no advocate for the doctrine of gravitation, seems to have thought that Pythagoras was so, because he combats the Pythagorean system, according to which the Sun ought to occupy the centre of the universe, as being inconsistent with the laws of gravitation. "The mass of earth," says he, "must be heavier than the mass of fire; and therefore the earth, and not the fire, ought to occupy the centre of the universe." Is not this argument clearly directed against the system of gravitation; and does not Aristotle thus plainly show that this doctrine had been taught by the Pythagoreans, against whom he was arguing? Those who are acquainted with the

discoveries of Herschel will probably admit that he has brought forward the best answer to the objection of Aristotle. In fact, if the body of the Sun be solid, and his atmosphere be luminous, the objection of Aristotle is removed.

Neom. This argument seems to be specious; but it is far from being conclusive. There is no appearance that the Pythagoreans had any notion of the laws which govern the motion of a projectile; or that they knew any thing of the centripetal and centrifugal forces.

Phil. You seem to forget, that we have only fragments of the philosophy of Pythagoras, and that he himself had probably only collected fragments of the philosophy of the Oriental nations. You cannot expect me to enter into details. The Pythagoreans taught, as I have already stated, that bodies gravitate to a common centre. They must then have known something of the laws, which govern the motion of projectiles. By love and discord they clearly meant attraction and repulsion; and what are centripetal and centrifugal forces, but attracting and repelling forces governed by the laws of gravitation?

Neom. It really only remains for you, *Philothoth*, to argue that the telescope, which we positively know to have been first invented in the beginning of the 17th century, was employed by the astronomers of Babylon and Thebes.

Phil. A sarcasm is not an argument. I cannot prove that the telescope was known to the ancients; and yet I may decline affirming so positively as you do, that it was first invented in the 17th century. I cannot prove that this instrument was ever employed for astronomical purposes before the time of Galileo; and yet I may admit it as not absolutely impossible, that it may have been used by astronomers of remoter times.

Moschopolus mentions four instruments, with which the astronomers of antiquity were accustomed to observe the stars—the *catoptron*, the *dioptron*, the *eisoptron*, and the *enoptron*. According to this author the *catoptron* was the same with the *astrolabe*. It is our business to enquire whether lenses were introduced into the tubes affixed to these instruments. Ptolemy has described the *astrolabe*, which he employed;

and there is no reason to think that he made use of any magnifying glasses. From his account of the *catoptron* modern readers have been able to form a pretty correct idea of it; but of the other three instruments, and especially of the two last, it is not so easy to speak with precision. The *dioptron* seems to have been so named from the tube, through which the observer looked. Were the other two instruments named from objects being reflected in a mirror placed within them? Aristotle (Meteorolog. L. 1.) says that the Greeks employed mirrors when they surveyed the celestial appearances. May we not conclude from this circumstance, that astronomers were not always satisfied with looking through empty tubes? There are, however, two things that we ought to know before we proceed further. First, whether the nations of antiquity made so much use of glass, as to render it probable that they should find out how it may be employed to magnify objects of vision; and secondly, whether from their observations and discoveries, there may be reason to think that they ever used glasses in surveying the heavens.

1. Mention is made of glass (זכוכית) in the book of Job, the most ancient book which exists, since it is generally supposed to have been written before the Pentateuch. The Egyptians, Phœnicians, and Babylonians, knew the art of colouring glass, which supposes that its use among them was sufficiently common. Glass was so abundant in Ethiopia, that coffins for the dead, as Herodotus and Diodorus attest, were frequently made of it. The Greeks knew how to melt and cast glass; and Plutarch mentions heath as the best fuel for the purpose. The Greeks also knew how to give to coloured crystals the appearance of precious stones. (Plin. L. 36. Theophrast. de lapid.) The manner in which the Romans coloured glass, says Winckelman, has not been equalled by modern ingenuity. (Hist. de l'art.) Glass was so much employed in ancient Rome, as to make it doubtful whether any modern palace contains half as much as was exhibited in the theatre erected by Scaurus. The Egyptians were such proficients in the art of casting glass, that it has been pretended that they could make it mal-

leable. The nations of antiquity were then so well acquainted with this substance, as to make it difficult to conceive that they should have been ignorant of any of its properties.

2. Some of the observations of the ancients must appear very extraordinary, if magnifying glasses had never been known among them. The boldness with which the Pythagoreans asserted, that the surface of the Moon was diversified by mountains and valleys, can hardly be accounted for, unless Pythagoras had been convinced of the fact by the help of telescopes, which might have existed in the observatories of Egypt and Chaldea, before those countries were conquered and laid waste by the Persians. Pliny (L. 11.) says, that 1600 stars had been counted in the 72 constellations, and by this expression I can only understand him to mean the 72 dodecans into which the Egyptians and Chaldeans divided the zodiac. Now this number of stars could never have been counted in the zodiac without the assistance of glasses. Ptolemy reckoned a much less number for the whole heavens. The missionaries found many

more stars marked in the Chinese charts of the heavens, than formerly existed in those which were in use in Europe. The Persians, as it appears from a passage in the *Nimetullah*, had a tradition, for it could have been nothing else, that the galaxy appears white from the great multitude of stars which it contains. Democritus seems to have been informed of a similar tradition; probably during his stay in Egypt. His statement was supposed to be founded in error; but when Galileo turned his telescope to the galaxy, he became convinced of the fact. Democritus likewise said that some of the planetary bodies were unknown to the Greeks. The Chaldeans asserted that they had discovered more. (Seneca Quæst. Nat.) These, it would seem, could only have been the satellites of Jupiter, and perhaps of Saturn. That the Brahmans had discovered these satellites may be strongly inferred from their reckoning the planetary bodies to be fifteen in number.

Having made these statements, let us now proceed to consider some remarkable circumstances, for which it may be difficult to account,

if the ancients were utterly ignorant of the use of the telescope. "

Suidas, at the word ὕαλος (glass) indicates, in explaining a passage in Aristophanes, that burning mirrors were occasionally made of glass. Now how can we suppose burning mirrors to have been made of glass, without supposing the magnifying powers of glass to have been known? The Greeks, as Plutarch affirms, employed metallic mirrors, either plane, or convex, or concave, according to the use for which they were intended. If they could make burning mirrors of glass, they could have given any of these forms to glass. How then could they have avoided observing, that two glasses, one convex and the other concave, placed at a certain distance from each other, magnified objects seen through them? Numerous experiments must have been made with concave and convex glasses, before burning mirrors made of glass could have been employed. If astronomers never knew the magnifying powers of glass, and never placed lenses in the tubes of the *dioptrons*, what does Strabo

mean, when he says, "Vapours produce the same effects as the tubes in magnifying objects of vision by refraction?" (L. 3. c. 138.)

You are an admirer of antique gems, intaglios, and cameos. You acknowledge the moderns to be inferior to the ancients in works of this nature. How happens it, that the former cannot work so finely with the aid of the microscope, as the latter did without it? You are unable to solve this question, and you are at last forced to acknowledge, that the gems, which you admire, could not have been cut in such perfection without the aid of magnifying glasses. But the knowledge of the powers of the microscope supposes the knowledge of the powers of the telescope.

It is no doubt a weighty objection, that Ptolemy seems not to have known any thing of the telescope. But if the ancient Egyptian priests knew how to construct such an instrument, may we not conclude, that it was a secret carefully concealed from the rest of the world? If any telescopes had existed either at Thebes or at Babylon, can we doubt that they would have been destroyed by the Persians? There was,

however, according to tradition, one exception. The Persians pretend that Alexander the Great found a mirror in which the universe was represented. This mirror, which they call *aynah Iskander*, would seem to have been a reflecting telescope. Certainly there have existed traditions for which it would be difficult to account, if no telescopes had ever existed before the age of Galileo. The Greeks reported that Pythagoras had shown letters written on the disk of the Moon by means of a mirror. Roger Bacon, who flourished in the 13th century, says that Cæsar surveyed the coast of Britain from that of Gaul, by the help of a glass; and this report, whether true or false, shows that a tradition existed of the ancient use of telescopes in the time of Roger Bacon, when these instruments were certainly unknown to the moderns.

Thus then, *Neomathes*, while I am far from venturing to affirm, that telescopes were employed in remoter times, I must decline asserting in the very positive terms which you have done, that this instrument was not invented before the 17th century.

But I have already trespassed too long on

your patience, and it is time to bring this discussion to a close. The ancient Hindus, Chaldeans, and Egyptians, appear to me to have been acquainted with a system of astronomy more scientific than some modern authors are willing to admit. The remnants of this system have sufficed to convince more adequate judges than myself, that when it was entire, it must have been worthy of admiration. It is in vain to urge, that the existence of fragments does not prove the existence of a system. I maintain, that they prove not only the existence, but the excellence of the system. When we see the ruins of an edifice, or the remnants of a wreck, we cannot doubt the former existence of a building and of a vessel; and we may even be able to judge from their remains what had been the form, the structure, and the magnitude of both.

CHAPTER VII.

Remarks on the sciences of medicine and anatomy as practised among the Egyptians.

I HAVE thought that some remarks on the knowledge of the ancient Egyptians in medicine, anatomy and chemistry, might not be uninteresting to the readers of the present volume. But as I have already treated of these subjects very fully in my essay on the science of the Egyptians and Chaldeans, this and the subsequent chapter may be considered as brief abridgements from that work.

It seems to have been the general custom of the ancient Egyptians to refer the invention of the arts and sciences to the Gods. Six volumes on the subject of medicine were still attributed to Thoth in the time of Clemens Alexandrinus.

The secrets of pharmacy, according to Diodorus Siculus, were believed by the Egyptians to have been revealed by the Goddess Isis to her son Horus. In the age of Homer the God *Paion* was supposed to be the founder of medical learning in Egypt; and indeed it would appear, that the poet considered every Egyptian skilled in medicine as having sprung from the God *Paion*. (Odyss. Δ. v. 131.)—(I may here mention, by the way, that *Paion* was probably the name of the God of Heliopolis, *Aon*, or *On*, with the definite article prefixed, for which usage the reader may consult Woide and Jablonski. It will then follow, that the Sun was the deity understood by Homer.)

The medical profession must have undoubtedly existed at a very early period in Egypt. If the word *rephaim* be properly translated in the English Bible, there were physicians in the days of Jacob. I am aware, that this translation does not accord with that found in the Septuagint, where *rephaim* is rendered by ἐνταφιασταὶ, *pollinctores*, which we may understand to signify embalmers; but the first embalmers

were probably physicians; besides, רפא, *medicus*, in Hebrew, clearly comes from the verb רפא, *sanavit*, a derivation honourable to the profession, and unquestionably of very remote antiquity.

Homer exalted the state of medicine in Egypt, when he said, in speaking of the Egyptians,

> Ἰατρὸς δὲ ἕκαστος ἐπιστάμενος περὶ πάντων
> Ἀνθρώπων.

The number of physicians in Egypt must have been very great in the time of Herodotus, since according to that historian, (L. 2.) there were physicians for every different part of the body, and for every different disease. Even the monarchs of Egypt seem not to have disdained the practice of the healing heart. Nechepsus, who reigned nearly seven centuries before our æra, is said by Julius Firmicus to have applied himself to the study of pharmacy; and Ætius mentions some of the remedies, which this royal apothecary recommended in the treatment of fevers. Manetho says that another king, named Athothis, wrote books on anatomy.

Some writers have thought that as the profes-

sion of medicine in Egypt was confined to one class of men, and was transmitted as by inheritance from father to son, it could never have been successfully cultivated in that country. Does this consequence necessarily follow? We likewise hear it observed, that as the physicians were compelled by law to follow exactly the prescriptions contained in the Hermaic books, the science must have remained stationary. But the medical books, falsely ascribed to Hermes, were probably forged at a late period, and are said by Galen to have been full of absurdities. The law, which enjoined a strict adherence to the regulations contained in those books, which were never seen but in the hands of the *Pastophori* during a procession, must have been altogether nugatory. The knowledge of medicine probably shared the fate of every other kind of knowledge, while Egypt remained under the dominion of the Persians. (Diodor. L. 1. Iamblich. de Myster. Æg. Galen. Facultat. Simplic. Medic. L. 6. Clem. Alexandrin. Strom. L. 5.)

Some scattered accounts of the medicines in

use among the Egyptians may be found in various writers. Of the *nepenthes* Homer has said enough for a poet, but not enough for a physician. M. Goguet thinks that it was opium; but neither Homer, (Odyss. L. 4. v. 220,) nor Diodorus Siculus describes it as a narcotic. The Egyptians administered the squill, or sea-onion, in cases of dropsy; and they employed the ἀετίτης, which is chiefly composed of the oxyd of iron, in treating the same disease. They made much use of external applications; and frequently employed unguents, in which, according to Galen, they mixed verdigris and the white of lead. An account of the remedy, recommended by King Nechepsus for diminishing stones in the bladder, may be found in Ætius. In the treatment of fevers they observed the critical days. It has been pretended, on the authority of Aristotle, (De Repub. L. 3. c. 15.) that they were compelled to do so by the law of which I have already spoken; but the law was probably founded on the practice, and not less probably was totally disregarded. It must have depended on the practitioner himself to declare

what was the state of the patient. Perhaps indeed when the treatment failed, the law was cited and blamed by the physician. The story told by Pliny of the Hippopotamus wounding itself, when redundant with blood, has been thought by some to be a hieroglyphical description of the origin of venesection in Egypt. The Greeks represent the *materia medica* of the Egyptians as chiefly consisting of simples. It is remarkable that we have no account of the manner in which they treated ophthalmia, a disease which has been probably always prevalent in their country.

Whether the Egyptians, or the Greeks, were the first who dissected human bodies, and could consequently first claim an acquaintance with anatomy, is a question, which has, I believe, been generally decided in favour of the latter. The justice of this decision, however, appears to me to be very doubtful. The priests, who pretended to be descended from Æsculapius, and were thence called Asclepiades, were the most ancient physicians among the Greeks; and for many ages, and long after the establishment

of regular medical schools, their success continued undiminished. Of the ignorance of these quacks and impostors abundance of proofs may be found in the writings of Pausanias, Plutarch, Philostratus, and Aristides; and since their defective knowledge was so apparent in later times, it would be idle to suppose that they possessed more skill in remoter ages. The first regular school of medicine in Europe was established by Pythagoras at Crotona. Alcmæon, who, by the dissection of animals, brought comparative anatomy to the aid of his science; and Democides, the celebrated physician of Darius, were both of this school. The yet more celebrated school of Cos was founded by Hippocrates, who, according to Celsus, was instructed by Democritus in the medical art. How far then the knowledge of the two founders of these two schools might have been derived from the Egyptians, I leave to be considered by those who reflect on the many years passed both by Pythagoras and Democritus in Egypt. One thing, however, is certain. No human bodies had ever been dissected by any Greek physi-

cian, so late as the time of Aristotle, since that philosopher (Hist. Animal. L. 1. c. 16.) admits, that the internal structure of the human frame was chiefly known by the aid of comparative anatomy. Herophilus and Erasistratus were the first Greek anatomists who dissected human bodies; and these physicians were both well advanced in life before they commenced their anatomical studies at Alexandria, under the reign of Ptolemy Soter. But this prince would have hardly permitted the introduction of such a custom, had it been as repugnant to the feelings of his new subjects, as it was to those of the Greeks. May we not thence argue, that the Egyptians had no prejudices on this subject? May we not even suspect, that the dissection of human bodies had been practised in Egypt before the time of Ptolemy Soter?

It has, however, been argued, that the customs of the Egyptians were as hostile to the practice of anatomy as those of the Greeks. In a country, where the bodies of the dead were embalmed with so much religious care, the practice of dissecting them, it is observed, could hardly have

been permitted. Even the embalmer, who was employed to open the body of the deceased, was, if we believe Diodorus Siculus, considered with abhorrence, and was compelled to fly for his life, after having performed an operation enjoined by the laws, and sanctioned by the religion of the country.

To this last statement I am not inclined to give much credit. The embalmer, according to Porphyry, proceeded in his business without molestation, opened the body of the defunct, took out the entrails, placed them in a chest, and after having offered a prayer to the Sun, threw the chest into the Nile. Diodorus says that the embalmer was assailed with stones, as he fled from the house where he had performed his duty. The practice of embalming could scarcely have existed for many ages in a country, where it was the custom to stone the embalmer.

The Egyptians were in the habit of placing dead bodies in the catacombs made to receive them in the caverns on the western side of the Nile; and the Greek *muthos* with regard to

Charon and the passage of the Styx, has been thence ingeniously explained by Diodorus. Some writers have contended, from the care taken to preserve the mummies, and from the belief in the soul's return to inhabit its material mould, that the dissection of human bodies could never have been allowed by the laws, nor reconciled to the religious notions of the Egyptians. It is, however, quite clear from the evidence of Diodorus himself, that many dead bodies were never placed in the catacombs; and it is quite impossible to believe, as that historian says, that they were placed upright against the walls in the houses of those who ought to have buried them. May we not suspect, that some of these unsepulchred bodies were occasionally submitted to the operation of the dissecting knife?

There existed no law, as far as I know, which prohibited the practice of dissection in Egypt. On the contrary this practice is said to have been encouraged, not only by the authority, but by the example of the kings. This fact is distinctly stated by Pliny. (L. 19.) It is in vain,

that M. Goguet would have these kings to have been the Ptŏlemies. No one ever heard of any of the Ptolemies holding the dissecting knife; and Pliny clearly intimates that the kings of whom he speaks had themselves dissected dead bodies for anatomical purposes. We have already seen, that two Pharaohs, Nechepsus and Athothis, were medical practitioners; and that the latter, as Manetho affirms, wrote books on anatomy.

Upon the whole then I am inclined to think, that Herophilus and Erasistratus either found, or revived, the practice of dissecting dead bodies in Egypt.

There is another circumstance which merits attention. The anatomical skill shown by Homer has often excited the admiration of his readers. In fact this great poet seems to have known more of anatomy, than many of the most famous physicians, who flourished several centuries after his time. An idea may be formed of the gross ignorance of the physicians of Greece before Herophilus, when it is recollected that he was the first among them who traced

the nerves to the brain and medulla; and that even he knew so little of the internal structure of the human frame, as to believe that the veins have their origin in the liver.

M. Goguet accounts for Homer's knowledge of anatomy, by supposing the dissection of human bodies to have been practised by the physicians of his time in Asia Minor. But the learned President might have made the same supposition with regard to the physicians of Egypt. He might have recollected, that Homer, according to Diodorus Siculus, had not only visited Egypt, but had been initiated into the sacred mysteries in that country. He might also have remembered, that the poet celebrates the medical skill of the Egyptians, and is silent with regard to that of the inhabitants of Asia Minor.

CHAPTER VIII.

Remarks on the knowledge of the Egyptians in chemistry and metallurgy in the early periods of their history.

ZOSIMUS, who was a native of Panopolis, and who flourished about the beginning of the 5th century, affirms that it was reported in the Hermaic books, that both the name and the science of chemistry existed before the flood. "A race of dæmons," says he, "had commerce with women. Hermes relates this in his Physics, and nearly universal report, both public and private, records it. The ancient and divine writings say," continues Zosimus, "that the angels became enamoured of women, and coming down, taught them all the works of nature. From them therefore is the first tradition,

chema, concerning these arts; for they called this book *chema;* and hence the art *chemia* took its name."

According to this account the authors of the forged Hermaic books must have been acquainted with some of the absurd fables, which the Rabbin have founded on the misinterpreted meaning of the 2nd verse of the 6th chapter of Genesis. The expositors of the oral law either believed, or professed to believe, that the בני האלהים, *Beni H'Elohim*, were angels, who descended from heaven, and who had commerce with the daughters of men. To this cause was imputed the great knowledge in the sciences to which mankind were supposed to have attained before the flood.

But however absurd the tradition repeated by Zosimus may be, we may at least infer from it, that the Egyptians attributed a very remote origin to the invention of chemistry. Neither were they wrong in placing this invention before the deluge, since the knowledge of metallurgy implies, to a certain degree at least, the knowledge of chemistry; and the art of metallurgy originated with Tubal-cain, who was the proto-

type of Ptah, the Egyptian Vulcan. According to Diodorus Siculus, the Egyptians reported "*Hephaistos* to have been the inventor of all workmanship in iron, brass, gold, and silver, as well as in every other workmanship which admits the operation of fire." The Bible says, that Tubal-cain was "the instructor of every artificer in brass and iron;" and consequently the knowlege of metallurgy must have been well advanced during the life of that patriarch. *Dum interim fossile æs*, says Boerhaave, *ut sua ex matre usui tractabile fiat, artem laboremque requirit summum: duodecies excoqui desiderans, ut sub malleo commode duci queat, Agricola teste, et Erkero. Imo et ferrum quoque excultam postulat valdeque laboriosam artem, priusquam humano serviat usui, ut iidem docent fide et peritia summi hac in arte præceptores.*

In tracing the etymology of the word *chemia*, which in our language we have barbarised into chemistry, we have our choice in referring it either to the Egyptian, or to the Hebrew and its cognate dialects. My own opinion is, that the Greeks gave it this name as an art practised in Egypt (*Chemi*), and with which they themselves

were never very conversant. The Egyptians, on the contrary, appear to have been acquainted with metallurgy and chemistry from a very remote period of antiquity. The truth of this assertion can be established on the authority of the sacred Scriptures.

When Jacob died, Joseph ordered the physicians to embalm the body of his father. The methods of embalming practised by the Egyptians, and described by Herodotus and Diodorus Siculus, do not evince any extraordinary skill; but when we consider the great antiquity of the custom, we cannot doubt that the attention of the Egyptians must have been turned at a very early period to the study of chemistry.

The construction of the tabernacle and the ark, and the unguents and perfumes employed in the celebration of the sacred rites, show the progress which the Hebrews had made in chemistry and metallurgy during their residence in Egypt. They distinguished between gold and fine gold; and must have consequently known how to purify gold, and to separate it from all heterogeneous matter. The figures of the Che-

rubim, and the form of the golden candlestick, prove that they could cast and work the metal. In the English version it is inaccurately said, that the Cherubim were *beaten out* of the gold, and that the candlestick was made of *beaten* work. I translate, "he made two Cherubim of gold, of solid (gold) he made them;" and again, "he made the candlestick of pure gold; of solid (gold) he made the candlestick." I conclude, therefore, that the gold had been cast in a mould.

Some passages in the 32nd chapter of the book of Exodus particularly prove the Hebrews to have possessed considerable skill in metallurgy. In the English version there are some inaccuracies.

V. 2. "And Aaron said unto them, Break off the golden ear-rings, which are in the ears of your wives, of your sons, and of your daughters, and bring them unto me.

V. 3. "And all the people brake off the golden ear-rings which were in their ears, and brought them unto Aaron.

V. 4. "And he received *them* at their hand,

and fashioned *it* with a graver's tool, after he had made *it* a molten calf."

V. 20. "And he took the calf which they had made, and burnt it in the fire, and ground it to powder, and strewed it upon the water, and made the children of Israel to drink of it."

V. 24. "And I said unto them, Whoever *hath* any gold, let *them* break it off: so they gave it me: and then I cast it into the fire, and there came out this calf."

The ungrammatical construction of some of these sentences has rendered the sense obscure in English, while in the Hebrew it is perfectly clear. But the translation appears not to be faithful. Aaron is said to have fashioned it (the gold) with a graving tool, *after* he had made it a molten calf. By what authority is the conjunctive particle ו rendered *after?* In the original the verbs are both in the same tense. Why are the tenses different in the version? The word חרט signifies a graving tool, where the letter *teth* has been substituted for a *tau*, and the word can be referred to the verb חרת, to engrave; but when this is not the case חרט signifies any thing

hollow; a box, a chest, &c. (See 2 Kings v. 22.) I would venture to suggest, that it means a mould in this place:—"And he took it (the gold) from their hands, and formed it in a mould, and made it a golden calf." Most certainly, if the received version be correct, Aaron must have worked with singular expedition. In less than 24 hours he melted the gold, and afterwards fashioned it into the form of a calf with a graving tool. But how is this to be reconciled with his own statement? "I cast it (the gold) into the fire, and there came out this calf." Nothing is here said of his having fashioned it with a graving tool. The gold, as it melted, probably ran out of the fire, or furnace, into a mould prepared to receive it.

According to the English version, Moses *burnt* the golden calf in the fire; nor does this translation vary from that given in the Vulgate. It would seem indeed, that all the translators had anticipated the notion of the celebrated Stahl, who in his treatise entitled *vitulus aureus in igne combustus*, is of opinion that the idol was reduced to powder by calcination. But the words

in the text, וישרף באש, should be rendered *and he melted it in the fire*, and not *he burnt it in the fire*. The gold, after having been first melted, might undoubtedly have been calcinated by a second process, and by the means of fire; but how, by any method of calcination, could it have been brought to such a state, that when ground down, and thrown on the water, it could become potable?

That Moses did render gold potable is a fact not to be questioned. Now one of two things necessarily follows—either Moses worked a miracle, or he must have possessed a very great knowledge of chemistry. There is no appearance of any miraculous intervention of Providence upon this occasion. We must then admit that the effect was produced by the operation of natural causes. Now the means of rendering gold potable have been shown by Stahl, and perhaps still better by Boerhaave; but those means are such, that only an able chemist could have discovered them. It is in vain to argue, that the knowledge of the means in question could not have existed in the time of the Hebrew

legislator. If we admit the facts, we must admit the knowledge.

When the Hebrews quitted Egypt, they appear to have been well acquainted with the arts of dyeing and tanning. The artificer "made a covering for the tent of rams' skins dyed red." This is a description sufficiently exact of what we commonly call red Turkey leather. The art of tanning being now so generally known, we are apt to forget how difficult the processes must have been, before this art was brought to its present state.

The curtains and veils of the tabernacle, and the garments of the High-priest, were made, according to our version, "of fine twined linen, and blue, and purple, and scarlet." But the critics are nearly generally agreed that שש signifies cotton. The curtains were 28 cubits in length, and 4 in breadth. To have dyed these of uniform colours must have required much practice in the art.

It appears from the word תכלת, that the blue employed by the Hebrews was of the dark tint of the cerulean hyacinth. The Egyptians were

probably supplied with indigo from Asia, if they themselves did not cultivate it at the early period of which we are speaking. The purple dye employed by the Hebrews was obtained from a flower, if we believe Josephus, who also talks of another flower whence the white was extracted; but, as Aben Ezra justly observes, the white cotton did not require to be dyed white. The words תולעת שני are generally rendered *twice-dyed scarlet*. The *tolath* was an insect like the cochineal.

The commerce of the Egyptians with the Asiatics seems, in the time of Jacob, to have consisted chiefly in gums, spices, and aromatics. Such a commerce indicates great wealth and great luxury on the part of the Egyptians, who made no exports, and who must have given gold in exchange for the articles which they received from the East. But if the Egyptians were idle as merchants, they must have been busy as chemists. If we turn our attention to the Hebrews at this period, we shall not doubt that they had employed the chemical skill,

which they had acquired in Egypt, in the composition of their perfumes and unguents.

The anointing oil, or unguent, was composed of pure myrrh, sweet cinnamon, sweet calamus, and cassia, combined with olive oil. The quantity of these aromatics in their crude state is noted, and was immense; but the ointment was to be "compound after the art of the apothecary." From this statement it may be justly inferred, that the juices and volatile oils of the aromatics were extracted from them by distillation and compression, and were then mixed with the fixed oil obtained from the olive.

The perfume was a composition of equal portions of stacte (נטף), onycha, galbanum, and pure frankincense, which after commixtion were to be ground to a powder. The Hebrew word לבנה, which we translate frankincense, denotes that this aromatic was white; but the matter of all resins only becomes white when purified, and this purification is effected by modern chemists by means of alcohol.

It follows from these statements, that when

the Hebrews quitted Egypt, the knowledge of metallurgy, chemistry, and pharmacy, must have been already well advanced in that country.

The presents, which according to Homer (Odyss. L. 4. v. 125.) were given by Polybus and Alcandra, the King and Queen of Egyptian Thebes, to Menelaus and Helen, display not only the wealth of the Egyptians, but their skill in metallurgy. Menelaus received two silver basins, and two golden tripods weighing ten talents, from Polybus; while Alcandra gave to Helen a golden distaff, and a silver basket, edged with gold.

The remarks contained in this chapter may suffice to give the reader a general idea of the progress, which the Egyptians had made in chemistry and metallurgy in the early periods of their history; but if he wish for a fuller examination of the subject, I shall take the liberty of referring him to my essay on the science of the Egyptians and Chaldeans.

CHAPTER IX.

Concerning hieroglyphics.

WHEN the arts were yet in their infancy, men employed mimetic images, or portraits, to represent individual objects, and to give notice of events to those who were absent. The Mexicans denoted the arrival of the Spaniards in their country, by painting the figure of a man distinguished from one of themselves by the peculiarities of the European dress.

Mimetic images, however, could but ill suffice for the purposes of communicating information, and of recording events. Conventional signs were chosen, which served as symbols both of things and of thoughts. The portrait of the European soldier, which I have mentioned above, had beside it the figure of a reed accompanied with 13 small circles; and by these conventional signs the Mexicans indicated the date

when according to their calendar the Spaniards invaded their empire.[1]

But in all countries much time must have elapsed, before men could have easily communicated their ideas to each other by the help of symbolical pictures. The graphic painter would probably begin improvement by lessening the

[1] The Mexican week, if I may so term it, consisted of 13 days. A week of years, as it was called, contained 13 solar years; and 4 weeks of years constituted the Mexican period of 52 solar years. The civil year consisted of 360 days; but at the end of each civil year the priests of Mexico, like those of Egypt, added 5 days. Again, at the expiration of the period of 52 years they intercalated 13 days; and consequently they must have reckoned the length of the tropical year at 365 days and 6 hours. Their calendar was represented by a wheel, the circumference of which was divided into 4 parts, and each of these 4 parts was again subdivided into 13 copartments, in which were represented by turns *a house, a rabbit, a reed,* and *a flint.* When a particular year was to be indicated, one of these objects was painted, and as many small circles were placed round it as might denote its recurrence on the wheel, and as might consequently denote the year intended to be understood. Thus a reed accompanied with 13 small circles indicated the 51st year of the Mexican cycle.

size, and by abridging the number of his signs. The language spoken to the ear would help him to form that which was to be addressed to the eye.

Among a people just emerging from the savage state, the influence of the imagination is far greater than among nations long tamed by civilisation. The eloquence of the barbarian may be rude, but it is never cold—it is feeling struggling for utterance—it is passion expressing itself in tropes and in metaphors.

Man, in the first stages of his intellectual improvement, still delights in those extravagant fictions and figments of the imagination, which he knows not yet either how to limit, or how to embellish. It is then that his restless fancy takes its wildest flights, and that his untutored taste loves to paint the simplest objects in the most glaring colours, and to dress out the plainest things with the most gaudy ornaments. But his mind is occupied with objects of sense; from them his ideas have been derived; and to them is to be referred the imagery with which his language abounds.

It is evident that in the formation of language, man proceeded from particulars to generals, classified individuals according to their species, and arranged qualities under their proper categories. Thus in inventing the words, by which he expressed his ideas, he also invented the means by which he might limit their number; and while he collected signs, by which he might communicate all his thoughts, he found methods, by which he could abbreviate the terms, without obscuring the meaning of his discourse.

Oral preceded written language. Now from the forms and figures of speech the graphic painter would learn both how to express his sentiments and to abridge his symbols. The metaphors, which he employed in speaking, would suggest to him the images which he might use in writing. When he spoke, he called the strong man a lion; and when he wrote, he drew the figure of a lion as the symbol of force. But the inconvenience of representing the entire image would soon be felt by the painter. The use of *synecdoche*, a figure of speech common to

all languages whether rude or refined, would teach him to place a part for the whole. Even the Mexicans were acquainted with this method of abridgement. They represented the rabbit by its head, and the reed, or water-plant, by its flower. Hence too the draftsman would be led to indicate an action, or an event, by representing some object necessary to its accomplishment. The Egyptians, as we learn from Horapollo, indicated the existence of a siege by painting a scaling ladder. Analogy would still furnish the painter with new emblems; and as he was accustomed in speaking to name, by metonymy, one thing for another, he would use the same licence in the choice of his symbols as in the choice of his words.

One of the first methods of abridgement which he would employ, would be to make the image of the individual serve as the image of the species; but after having thus put the part for the whole, it would often be necessary for him again to distinguish the individual. The Mexicans seem to have had no other idea of doing this, than by drawing mimetic pictures. In

Egypt the art was carried farther. If indeed the object were inanimate, it might be indicated by a mimetic picture, as also might an animal, unless it were one symbolising a deity; and in either case distinctive signs might be omitted. But if the Egyptians wished to denote the number of individual objects, they employed numerical signs. Both gods and men (besides the phonetic characters, of which we shall soon have occasion to speak) had their particular designations—each was distinguished from all the rest by peculiar symbols—and these symbols denoted the individual, perhaps nearly in the same manner as his heraldic blazonry announces a prince, or a noble, of modern Europe.

Thus the classifications which exist in all languages, but more especially the tropes and figures which abound in dialects spoken by nations not yet refined by the highest degree of civilisation, must have greatly facilitated both the invention and the comprehension of hieroglyphics.

But whatever might have been the talents of the graphic painter, his method was essentially defective; his symbols were liable to be misun-

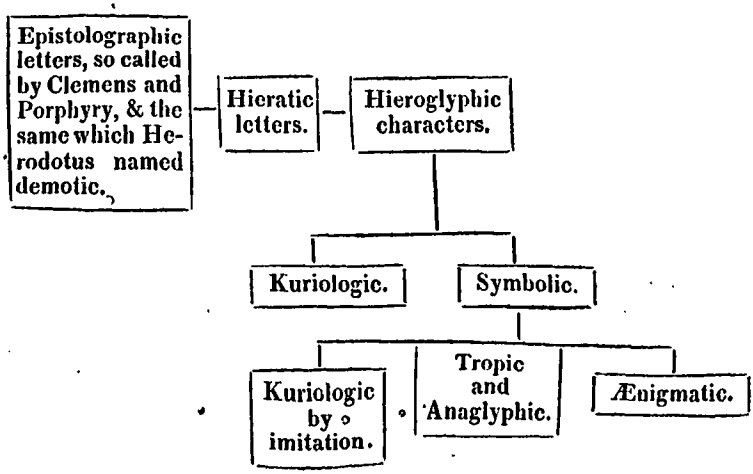
derstood; and his art could only be practised by a few. The inconvenience attending the hieroglyphical mode of writing probably induced the Egyptians, at a very early period of their history, to adopt a more easy and compendious method of expressing their thoughts by the aid of graphic symbols. We accordingly find from the Greek historians, that the Egyptians employed two different kinds of characters, which were generally denominated the sacred and the vulgar. (Herodot. L. 2. c. 36. Diodor. Sicul. L. 1. c. 81.) It is impossible, however, for us not to remark, and to regret, the scantiness of the information afforded to us by the classical writers on a subject so curious and interesting, as that which we are now examining. If indeed we wish to obtain any accurate notions concerning it, we must turn to the pages of a father of the Church, and learn from Clemens Alexandrinus the different methods of writing which were employed and taught by the profane worshippers of Isis and Osiris. The passage, to which I allude, has been often quoted; but it cannot well be omitted by any writer, who treats

of the question now under our examination. *Αὐτίκα οἱ παρ' Αἰγυπτίοις παιδευόμενοι πρῶτον μὲν πάντων τὴν Αἰγυπτίων γραμμάτων μέθοδον ἐκμανθάνουσι, τὴν ἐπιστολογραφικὴν καλουμένην, δεύτερον δὲ, τὴν ἱερατικὴν, ᾗ χρῶνται οἱ ἱερογραμματεῖς, ὑστάτην δὲ καὶ τελευταίαν, τὴν ἱερογλυφικὴν, ἧς ἡ μέν ἐστι διὰ τῶν πρώτων στοιχείων κυριολογικὴ, ἡ δὲ συμβολική. τῆς δὲ συμβολικῆς ἡ μὲν κυριολογεῖται κατὰ μίμησιν, ἡ δ' ὥσπερ τροπικῶς γράφεται, ἡ δὲ ἀντικρὺς ἀλληγορεῖται κατά τινας αἰνιγμούς. Ἥλιον γοῦν γράψαι βουλόμενοι κύκλον ποιοῦσι, σελήνην δὲ σχῆμα μηνοειδὲς, κατὰ τὸ κυριολογούμενον εἶδος. Τροπικῶς δὲ κατ' οἰκειότητα μετάγοντες καὶ μετατιθέντες, τὰ δ' ἐξαλλάττοντες, τὰ δὲ πολλαχῶς μεταschηματίζοντες χαράττουσιν. Τοὺς γοῦν τῶν βασιλέων ἐπαίνους θεολογουμένοις μύθοις παραδίδοντες, ἀναγράφουσι διὰ τῶν ἀναγλυφῶν. τοῦ δὲ κατὰ τοὺς αἰνιγμοὺς τρίτου εἴδους δεῖγμα ἔστω τόδε. τὰ μὲν γὰρ τῶν ἄλλων ἄστρων, διὰ τὴν πορείαν τὴν λοξὴν ὄφεων σώμασιν ἀπείκαζον, τὸν δὲ Ἥλιον τῷ τοῦ κανθάρου, κ. τ. λ.—*Those, who are educated among the Egyptians, learn first of all the kind of Egyptian letters called epistolary; secondly, the hieratic* (or sacred), *which the hierogrammatists* (or sacred

writers) *employ; and the last and most perfect, the hieroglyphic, of which one sort is kuriologic* (or is expressive of proper objects themselves) *by means of the first elements* (or alphabetic characters), *and of which another sort is symbolic. Of the symbolic* (writing) *there is one mode, by which the proper objects themselves are denoted by imitation; by another mode they are represented tropically* (that is, the objects are expressed figuratively, by means of changes made in the usual forms and situations of the characters); *and on the contrary, there is a third mode, which expresses them allegorically by means of certain ænigmas. Thus according to the method of representing the proper form of an object by imitation, the Egyptians make a circle when they wish to indicate the Sun, and draw a luniform figure to denote the Moon. When they write in the tropical manner, they change and transpose the forms according to certain agreements* (or analogies), *and alter and transmute, in many various modes, the figures which they inscribe. Thus when they repeat the praises of their kings in their theological fables, they describe them by means of anaglyphs* (that is, by

transposing the hieroglyphs, placing them out of their usual order, and perhaps changing their figures).[1] *Of the third kind of symbolical writing, which is ænigmatical, this may serve as an example —they liken the oblique course of the other stars to the bodies of serpents, but the Sun's to that of a scarabæus, &c.* (Strom. L. 5.)

We may now, I think, express the different kinds of Egyptian writing, and their relations to each other, by the following scheme :—



[1] I am aware that I differ here from some learned writers, who think that by anaglyphs the author meant sculptures in low relief. I do not see how this interpretation can square with his meaning. Besides, I consider the anaglyph to have been to sculptured, what the anagram was to written, characters.

CHAPTER X.

The same subject continued.

SINCE the famous Rosetta inscription has been known in Europe, much light has been thrown on the graphic symbols employed by the ancient Egyptians; and upon this subject the learned world has been chiefly indebted to the talents and industry of Doctor Young and M. Champollion.

The explanations, which the latter has given of various Egyptian monuments, may justly inspire us with confidence; because he has proceeded according to a system, which in many instances seems to be confirmed beyond the possibility of doubt. There may, however, be more exceptions to his rules, than he is always

willing to admit; and less certainty in his conclusions than he sometimes too pertinaciously maintains. We could wish for his own sake, as well as for that of his theory, that he had not said of the system of his rival, that it applies to nothing, and of his own that it applies to every thing. His system will always be esteemed as the work of a man of genius; but time has yet to decide, whether it be quite so extensive, or quite so accurate, as its author appears to consider it.

According to M. Champollion, *le système graphique Egyptien étoit composé de trois espèces d'écritures:*

A. *l'écriture hiéroglyphique, ou sacrée;*
B. *l'écriture hiératique, ou sacerdotale;*
C. *l'écriture démotique, ou populaire.*

I shall make a few remarks on some of the principles which he endeavours to establish. He says:

A. 1. L'écriture *hiéroglyphique* ou sacrée consistoit dans l'emploi *simultané* de signes de trois espèces bien distinctes:

a. De *caractères figuratifs,* ou représentant l'objet même qu'ils servoient à exprimer ;

b. De *caractères symboliques, tropiques, ou énigmatiques,* exprimant une idée par l'image d'un objet physique qui avoit une analogie vraie ou fausse, directe ou indirecte, prochaine ou très eloignée, avec l'idée à exprimer ;

c. De *caractères phonétiques,* exprimant les sons encore par le moyen d'images d'objets physiques. (Précis, &c. p. 380.)

M. Champollion would perhaps have done better to have followed Clemens, than to have given us this new account. The characters, which he calls *figurative,* or *representing the object itself which they serve to express,* are no other than kuriologic hieroglyphs. But kuriologic characters, which directly indicate the object itself, are such, either διὰ στοιχείων, or κατὰ μίμησιν ; because a graphic character, which directly indicates an object, must represent either the name, or the image of the object. It follows, that M. Champollion's definition is not complete, as given at the letter *a.* Again, the phonetic characters, of which he speaks at the letter *c,* are

comprehended under figurative characters representing, διὰ στοιχείων, the object itself which they serve to express. Thus when the learned and ingenious author gives us the *cartel* with the name of Ptolemy, the hieroglyphs are figurative characters, indicating the person himself, because they are also phonetic characters, expressing the sounds of which that person's name is composed. It is therefore obvious, that the μέθοδος Αἰγυπτίων γραμμάτων διὰ τῶν πρώτων στοιχείων κυριολογικὴ comprehends phonetic characters *exprimant les sons encore par le moyen d'images d'objets physiques.*

A, 3. Les caractères *phonétiques* sont de véritables signes *alphabétiques*, qui expriment les sons des mots de la langue Egyptienne parlée.

A. 4. Tout hiéroglyphe *phonétique* est l'image d'un objet physique, dont le nom, en langue Egyptienne parlée, commençoit par la *voix* ou par *l'articulation* que le signe lui-même est destiné à exprimer. (p. 381.)

It is not always easy to tell what is the precise physical object of which a phonetic character is the image. If however we admit M.

Champollion's rule for any one example of a phonetic hieroglyph, we must extend it to all the characters which, though different in form, are the same in sound, and which are therefore denominated *homophonous*. I shall select a few examples where the rule seems totally to fail. According to M. Champollion's phonetic alphabet an eagle is the first phonetic hieroglyph which represents the letter *A;* and we find that this sign perfectly corresponds with the rule, because ⲁϧⲱⲙ, *achom*, signifies an eagle. But an arm is given as a *homophonous* character; and the Coptic word for an arm is ϣⲱⲃϣ *shobsh*. The 10th *homophon* is a leaf according to some; a feather according to others. I cannot find any word in Coptic, signifying either a leaf or a feather, and beginning with the letter *a*. Under the phonetic symbols of the letter *d* we find a scarabæus; but this reptile is named ϭⲁ-ⲗⲟⲩⲣⲥ, *salouks*, in Coptic. The letter *l* is represented by a lion; and M. Champollion says, that ⲗⲁⲃⲟⲓ, *laboi*, signifies a lion in Coptic. The more usual word employed to denote that animal is ⲙⲟⲩⲓ, *moui*. Besides, it may be ques-

tioned whether *laboi* be not originally a Hebrew word, (לבא, or לביא,) which the Copts have adopted. Had it been an indigenous word, it is not likely that the Coptic translators of the Apocalypse should have so far mistaken its meaning as to employ it in rendering ἄρκτος. (See La Croze's Lexicon.) A vase, or pitcher, is one of the representatives of the letter *n*, with which letter, however, no word signifying either a vase or a pitcher happens to begin. The letter *s* is represented by an eye; but ⲂⲀⲖ, *bal*, is the only word in Coptic which signifies an eye. The letter ϣ is represented by what M. Champollion calls *l'image abrégée d'un jardin* ϣⲏⲏ (*shné*). I confess, I do not quite understand this: ϭⲱⲙ, *som*, is the Coptic word for a garden.

A. 17. Certains bas-reliefs Egyptiens, ou peintures composées d'images d'êtres physiques, et surtout de figures monstrueuses groupées et mises en rapport, n'appartiennent point à *l'écriture hiéroglyphique;* ce sont des scènes purement allégoriques ou symboliques, et que les anciens ont distinguées sous la dénomination *d'anaglyphes*, nom que nous devons leur conserver. (p.

383.) If we continue to give to anaglyphs their ancient denomination, we may as well continue to give to them their ancient place among those symbolic hieroglyphs, which Clemens Alexandrinus has named tropic.

A. 19. Les *anaglyphes* semblent être des pages de cette écriture secrète que les anciens auteurs Grecs et Romains nous disent avoir été connue seulement des prêtres, et de ceux qu'ils initioient à leur mystères. Quant à l'écriture *hiéroglyphique*, elle ne fut jamais secrète; et tous ceux qui, en Egypte, recevoient quelque éducation, en possedoient la connoissance. (p. 384.) But why should the priests have made a greater mystery of anaglyphs than of other tropic hieroglyphics? I know of no authority from which it can be shown, that these *bas-reliefs*, if *bas-reliefs* they were, contained any thing more secret and hidden than other sacred symbols. Clemens Alexandrinus would almost lead us to draw an opposite conclusion. He tells us that by means of anaglyphs they celebrated and handed down the praises of their kings. Flatterers of princes do not usually choose to express themselves in

a language that nobody understands. M. Champollion says that all those who in Egypt received some education possessed the knowledge of hieroglyphical writing. Diodorus Siculus was of a different opinion: *Τὸ δ' ἄλλο πλῆθος τῶν Αἰγυπτίων ἐκ παίδων γράμματα ἐπ' ὀλίγον διδάσκονται, οὐχ ἅπαντες, ἀλλ' οἱ τὰς τέχνας μεταχειριζόμενοι μάλιστα.* *The rest of the community of the Egyptians are taught letters from boyhood, not all, but chiefly those who are employed in the practice of the arts.* (L. 1.) From the following passage it appears that Diodorus meant not the sacred but the vulgar characters by the words which I have just quoted:—*διττῶν γὰρ Αἰγυπτίοις ὄντων γραμμάτων, τὰ μὲν δημώδη προσαγορευμένα πάντας μανθάνειν, τὰ δ' ἱερα καλούμενα παρὰ μὲν τοῖς Αἰγυπτίοις μόνους γινώσκειν τοὺς ἱέρεις παρὰ τῶν πάτερων ἐν ἀπορρήτοις μανθάνοντας, κ. τ. λ.*—*There being two kinds of letters among the Egyptians, all learn those which are named the vulgar, but the priests alone know those called sacred by the Egyptians, having been instructed in arcane things by their fathers, &c.* Now by sacred letters Diodorus must have meant hieroglyphical symbols, as well as those

characters which Clemens calls hieratic, because according to Diodorus there were but two kinds of graphic characters employed by the Egyptians, the sacred and the vulgar, and it is clear that hieroglyphs must have consequently been included by the historian in the former and not in the latter class. How indeed can it be imagined that the wide range of symbolic, tropic, and ænigmatic hieroglyphs, with their double meanings, could have been studied and known by all those who might have been conversant with the mode of writing which was in common use? The hieroglyphs are not always placed in the same order, even where we consider them to be merely phonetic characters. How can we tell, whether the priests did not often convey meanings to each other by these transmutations, of which meanings all others were ignorant but themselves?

That hieroglyphical symbols were not so generally understood as M. Champollion thinks, is likewise clear from the testimony of Apuleius: —*De opertis adyti profert quosdam libros, literis ignorabilibus prænotatus, partim figuris, cujusmodi*

animalium concepti sermonis compendiosa verba suggerentes, partim nodosis, et in modum rotæ tortuosis, caprcolatimque condensis apicibus, a curiositate profanorum lectione munita. (L. 11.)

Now the characters, of which Apuleius speaks in this place, were evidently not the same with those, which M. Champollion himself has taught us to believe were the hieratic or sacerdotal. They appear to have been what he calls lineary hieroglyphs.

B. 21. L'écriture *hiératique* ou *sacerdotale* n'est qu'une simple tachygraphie de l'écriture sacrée, et en dérive immédiatement; et dans ce second système, la forme des signes est considérablement abrégée. (p. 384.)

C. 25. L'écriture *démotique*, *épistolographique* ou *enchoriale*, est un système distinct de *l'hiéroglyphique*, et de *l'hiératique* dont il dérive immédiatement. (p. 385.)

Upon the whole it appears, that by the light which Doctor Young and M. Champollion have thrown upon the subject, the student may learn to read much of the enchorial writing, because it nearly excludes all figurative characters, consists

in great part of phonetic characters, and contains a fewer number of characters than the other Egyptian modes of writing. (Précis, &c. p. 385.) The student will find more difficulty in mastering the hieratic characters, not only because they are more numerous than the demotic, but because they consist of figurative and symbolic, as well as of phonetic signs. (Précis p. 384.) To become familiar with many phonetic hieroglyphs, or hieroglyphs which are kuriologic, by means of alphabetical letters, will cost little comparative labour to the student, while he follows the steps of M. Champollion. By the aid of Greek writers, and yet more by comparing with the originals Greek versions of Egyptian writings, he may discover the sense of some imitative, and even of some ænigmatic hieroglyphs. But in speaking of all symbolical hieroglyphs, he will perhaps display his prudence, if he observe much reserve in his attempts at explanation. The priests of Egypt appear to have affixed two senses to their symbolic hieroglyphs, the one exoteric, and the other esoteric. Let the student be careful how he denies the

existence of an esoteric meaning, because he himself does not perceive it. The Egyptians themselves went on from age to age, employing, and often transcribing, the same hieroglyphical symbols. The Greeks repeated the same symbols in the times of the Ptolemies; and Greek workmen were found in the times of the Cæsars to copy, and perhaps to compose, hieroglyphical writings. But it is not so certain, after the Persians were driven out of Egypt by the Greeks, that the Egyptian priests themselves knew the arcane meaning of their symbols, as they had done before the conquest of their country by Cambyses. Hermapion has probably given us the exoteric sense of the kuriologic hieroglyphics on the obelisk of Rhameses. It does thence follow, that the arcane meaning of the symbolic characters employed by the priests, whether found on monuments or in books, was of equal notoriety.

CHAPTER XI.

The same subject continued.

THE Egyptians, as we have seen from the two preceding chapters, employed alphabetic signs and characters in the three different modes of writing called the demotic, the hieratic, and the hieroglyphic. M. Champollion, whose industry merits great praise, has pointed out 134 hieroglyphs, which he considers as phonetic. Whether he be always correct in naming these, in distinguishing them from other symbols, and in assigning its proper power to each character, are questions which time and criticism have yet to decide.

Kircher pretends that the letter A was the first in the Egyptian alphabet, and that its form was taken from that of the ibis. M. Champollion has also given the first rank to the letter A

among the phonetic characters, which have been discovered by Dr. Young and by himself; while the figure of the ibis is not exhibited among all the forms, amounting, as I have stated above, to 134 in number. Now Plutarch tells us, (Sympos. L. 9.) *that because Hermes was reported to have been the first of the Gods in Egypt who invented letters, the Egyptians represented the first letter under the form of an ibis, as belonging to Hermes;* and then he adds, *improperly, in my opinion, giving precedence among letters to a mute and to one that is not a vowel.*

The letter A, therefore, could not have been that which was represented by an ibis, as was imagined by Kircher; nor could it have stood at the head of the Egyptian alphabet, where it has been placed by M. Champollion.

Jablonski thinks that the letter which Plutarch meant to indicate was a *thèta*, because this letter was the first in the name of *Thoth*, the Egyptian Hermes. But if Jablonski be right, the Egyptian letter, as we shall presently see, must have had a different form from the Greek, or the Coptic, Θ.

The letter, of which the ibis was the symbol, was represented either by the figure of that bird, or by imitative forms, in which the representation of a part was put for the whole. Plutarch (Sympos. L. 3.) gives us to understand, that these forms were triangular characters suggested by the appearance of the ibis, *when it spreads its legs, and opens its beak.* M. Champollion has neglected to place the figure of the ibis among his phonetic hieroglyphs; but where it occurs among the names and titles which he explains, he assigns to it the power of the letter T. With respect to the triangular characters, we may conclude, that to find these among the phonetic hieroglyphs, will be to find the letters which Plutarch indicates. If then we turn to M. Champollion's plates, we may observe that, at Nos. 154 and 155, the letter T is represented in the proper name of *Petamon* by the triangle Δ. But since the figure of the ibis is employed as a phonetic hieroglyph, equivalent to the letter T, the triangle, equivalent to the same letter, must be at least one of the forms to which Plutarch alludes.

The Egyptian triangle, Δ, like the Greek, may have originally answered to the letter D. In later times, however, the Egyptians appear not to have been able clearly to articulate this letter, and accordingly when the Coptic alphabet was introduced, it was rejected altogether, and its place was supplied by the Θ, the T, and the X.

But if the Egyptian and Greek forms of the *delta* were the same, we are naturally led to enquire, whether the Greeks did not obtain this letter from the Egyptians. In following general opinion, however, we must derive the Greek alphabet from the Phœnician. This opinion has indeed in its favour the authority of Herodotus, (L. 5. c. 58.) of Diodorus Siculus, (L. 5.) of Mela, (L. 1.) and of Clemens Alexandrinus (L. 1.); and we certainly find the *delta*, both in Phœnician and in Punic inscriptions, frequently represented by a triangular character.

This coincidence in the forms of a single letter, in the Egyptian, Phœnician, and Greek alphabets, leads us to make further enquiries. Do other characters in these alphabets, as well

as those letters to be found in the alphabets of different ancient nations, resemble each other? In order to enable the reader to decide this question for himself, I have made out the comparative table, which he will find at the end of the chapter. I have placed the Egyptian alphabetic characters, as given by M. Champollion, under the titles of *hieroglyphic*, *lineary*, *hieratic*, and *demotic*, in four columns, and in twelve collateral columns I have arranged the corresponding letters belonging to some other ancient languages. In a few instances I have ventured to differ from M. Champollion. I have referred to the Asiatic *ain*, or *oin*, some Egyptian forms, which that author represents as corresponding with other letters. In Coptic, it is true, we do not find the *ain;* but this is not a proof that it was not employed by the ancient Egyptians; and even admitting that it did not exist in their alphabet, they must have endeavoured to express its power by the help of vowels. Thus the Copts supply its place by the vowels *a* and *o*. It will be hardly doubted, for example, that the Coptic ΟΛ, *ol*,

or ⲰⲖⲈⲒ, *oli, tollere, ascendere,* &c. is the same word as the Hebrew עלה, *olah,* which bears the same meaning. The noun ϪⲰⲖⲈⲒ, *djoili, commendatio,* is clearly taken from the Arabic verb جعل, *jol,* or *djol, commendavit.* The name of the city ϪⲀⲚⲎ, *Djane,* is צען, *Tsoan,* in Hebrew; and the Hebrew orthography of *Pharaoh* is פרעה. But the sacred historian would scarcely have written these names with an *ain,* if he had not been justified by the orthography of the Egyptians themselves. I have also represented the square hieroglyph as equivalent not only to a *p* but to a *b;* and I think myself authorised by finding it in the name of Anubis, where it must as clearly stand for a *b,* as it has been shown by M. Champollion to designate a *p* in the names of Ptolemy and Cleopatra. Finally, I have placed two or three hieroglyphs, which M. Champollion supposed to answer to the Chaldean *samech,* on the same lines with the *tau* and the *teth.* It is also necessary to observe, in case the reader should not have seen M. Champollion's plates, that I have made a selection among the homophons of each Egyptian charac-

ter, and that consequently only a very limited number of phonetic hieroglyphs is represented in the table.

If then, upon the inspection of this table, the reader should think the resemblance between certain Egyptian characters, and the ancient letters of some Asiatic, and even of some European, nations, to be so striking as to make it altogether improbable that it could have resulted from accident, he will perhaps be disposed to examine with me, whether all these characters had not a common origin. It will consequently be natural for him to enquire, where he is to look for that origin, and to what people he is to ascribe the invention of letters.

The Greeks and Romans have attributed this invention to different nations. According to Plato, (in Philebo,) the Egyptian *Theuth* invented letters, divided them into vowels and consonants, subdivided consonants into mutes and liquids, and surnamed them elements. If we believe Manetho, the columns, from which he composed his history, were inscribed with hierographic letters by Thoth, the first

Hermes, before the deluge. (Syncellus p. 40.) The Egyptians, says Tacitus, represent themselves as the inventors of letters (Annal. L. 11. c. 14.); and Pliny states, that Anticlides reports, that a certain person of the name of Menon invented letters in Egypt fifteen years before Phoroneus, the most ancient king of Greece; and that he endeavours to prove this from the monuments. (L. 7. c. 56.) St. Augustin tells us that the Egyptians were taught the use of letters by Isis, and adds that Varro, *non parvus auctor in historia, hoc prodidit.* (De Civ. Dei, L. 18.)

Lucan ascribes the invention of letters to the Phœnicians in his well-known verses—

Phœnices primi, famæ si creditur, ausi
Mansuram rudibus vocem signare figuris.
Nondum flumineas Memphis contexere biblos
Noverat; et saxis tantum volucresque feræque
Sculptaque servabant magicas animalia linguas.

Pliny says, *ipsa gens Phœnicum in gloria magna literarum inventionis.* (L. 5. c. 12.) The Greeks, according to Theodoret, *fabled* the Phœnicians to have invented letters. (Adv. Græc. L. 1.) If

we may believe fame, says Q. Curtius, the people of Tyre, (in other words the Phœnicians,) were the first who either learned or taught the use of letters. (L. 4.) But the invention of letters was also attributed to the Syrians, Assyrians, and Babylonians. Eusebius observes that there are some who say that the Syrians first invented letters; (Præp. Evang. L. 10. c. 5.) and indeed this is expressly asserted by Diodorus Siculus (L. 5.) The Assyrian letters were thought by Pliny to be the most ancient of any. (L. 7.) Polyhistor reports, on the perilous authority of Berosus, that the Babylonians were taught the use of letters by Oannes before the flood. (Euseb. Chron. L. 1.)

Some ascribe the invention of letters to the Hebrews. (Euseb. Præp. Ev. L. 10.) But the Hebrews, before the Captivity, employed the Samaritan characters, and these are nearly the same with the Phœnician.

Thus is it difficult to assign the priority to any of the alphabets of any of these nations.

I have already remarked the resemblance, which existed between some of the graphic cha-

racters employed by the Egyptians, and some of those in use among the nations of western Asia; and this resemblance indicates all such characters to have had a common origin. Shall we suppose then, that the Egyptians, for example, invented an alphabet, and that it was copied by the Phœnicians and Chaldeans? We find, with not many exceptions, each Phœnician and Chaldaic character to have resembled some one form of each Egyptian letter, whether hieroglyphic, hieratic, or epistolographic. Now as the Phœnicians and Chaldeans confined each letter to a few forms, (the Chaldeans never exceeding two,) and these not unlike to each other, they could not exhibit more than a comparatively very limited number of the many different figures, by which the Egyptians represented each separate alphabetic character. Since, however, we find the Phœnician and Chaldaic letters frequently corresponding in form to one set of Egyptian characters, may we not thence conclude, that the Phœnicians and Chaldeans borrowed their alphabets from the Egyptians, in copying each of their letters from a hieroglyph,

and in choosing the particular homophon, of which the figure was most suitable to their purposes?

To this question I am inclined to answer in the negative. If the Phœnicians and Chaldeans had copied the Egyptian letters, the copy would have been more exact. It costs little trouble to the antiquary to trace the Cadmean letters to the Phœnician. The very names of the Greek characters indicate their origin. But the Phœnician forms of the *aleph*, the *ghimel*, the *zain*, the *pe*, and the *resh*, bear no resemblance to any Egyptian characters. Even in examples, in which a resemblance may be traced, we shall presently see, that no copies had been taken from Egyptian letters. But were it even true, that the Chaldeans and Phœnicians had borrowed their alphabets from the Egyptians, we should still have to enquire to what nation we owe the invention of letters. The Greeks and Romans have said nothing, (probably because they knew nothing,) of the ancient graphic characters employed by the nations beyond the Tigris. Neither the Chinese, however, nor the

Hindus, nor the Iranians, would have admitted, at any period of history, the claims of the nations of the west to the invention of letters.

There seems then to be no other way of accounting either for the early use of letters among so many different nations, or for the resemblance which existed between some of the graphic symbols employed by those nations, than by supposing hieroglyphic writing, if I may be allowed the term, to have been in use among the Tsabaists in the first ages after the flood. I shall not argue on the authority of Oriental tradition, that letters were invented by the antediluvians; though I see no reason why the fact should be deemed improbable. The sacred historian indeed is silent on the subject; but the existence of prophesies written by an antediluvian patriarch seems to be attested by a Christian Apostle. (Epistle of Jude v. 14.) Of the use of letters, or at least of hieroglyphs, being very general soon after the deluge, there can, I think, be little doubt. The Tsabaists represented their deities by symbols. These symbols were again represented by graphic characters, many of which, it may be believed, were

phonetic; and as the system of the Tsabaists had extended nearly over the whole habitable world before the time of Abraham, (Maimonides in More Nevochim,) those graphic characters were probably in universal use among the priests who adored the hosts of heaven.

There is indeed no want of strong presumptive evidence in favour of the opinion which I have just announced. If the Tsabaists, or rather their priests, communicated their thoughts to each other by means of graphic symbols, we may expect to find such symbols among the ancient monuments of every nation, of which the records, or even the traditions, can go back to those remote ages, when Tsabaism was the religion of almost every country that was yet inhabited. Symbolical writing, or rather painting, existed among the Chinese in the very early periods of their ancient monarchy. (Le Comte sur l'état present de la Chine.) Some authors attribute a book containing an account of the origin of letters to *Thienne-hoang*, an emperor of China, who reigned many ages before the time of Fohi. In considering this story to be

absurd and fabulous, we may observe that it shows the strong conviction which the Chinese entertain of the great antiquity of their graphic characters. (See the letter of M. Des Hautes Rayes to the President Goguet.) The sides of the caves and caverns sacred to Mithras and Siva were covered with hieroglyphs and emblematical sculptures. (Hyde de Rel. Vet. Pers.; Maurice's Indian Antiquities; Asiatic Researches; &c.) In the north, as Olaus Rudbeck has proved, the ancient Scythians and Scandinavians represented letters by the figures of animals in the same manner as the Egyptians. According to Berosus, as reported by Polyhistor, the figures of various animals and monsters, some of which were probably hieroglyphs, were painted on the walls of the temple of Belus at Babylon. (Euseb. Chron. L. 1.) The Mexicans, according to Acosta, must have communicated their thoughts by painted symbols, much in the same manner as the Chinese appear to have done in the early periods of their history.

Thus different nations, while all the arts were yet in their infancy, and ere social order was yet

well established, employed pictures, images, and graphic emblems, to express their ideas. It is still more extraordinary to find the use of letters attested to have existed among some of those nations, in times when we might have expected to have heard only of their rudeness and barbarism. We have already seen the evidence of Plato. We have been assured by that great philosopher, that Theuth, or Thoth, was the inventor of letters; and we know that if such a person ever existed, he must have lived soon after the deluge, if not before it, as Manetho intimates. Again, we have seen the assertion of this Egyptian high priest, according to whom the first Hermes wrote with hierographic letters. (ἱερογραφικοῖς γράμμασι.) Sanchoniatho has a remarkable passage in speaking of the same Hermes, or Thoth, whom he calls Taautus—*Πρὸ δὲ τούτων Θεὸς Τάαυτος, μιμησάμενος τὸν Οὐρανὸν, τῶν θεῶν ὄψεις Κρόνου τε καὶ Δαγῶνος καὶ τῶν λοιπῶν, διετύπωσεν τοὺς ἱεροὺς τῶν στοιχείων χαρακτῆρας. Before these things the God Taautus, having made a mimetic representation of Ouranos, and also the portraits of Kronos, and Dagon, and of the rest of*

the Gods, formed, or designed the sacred characters of the elements. The writer then says, that Taautus imagined certain marks of royalty for Kronus; and proceeds to enumerate those by which he was characterised. Now by the *sacred characters of the elements*, the author seems to mean those hieroglyphs which were used as phonetic symbols in the hieratic mode of writing. I am aware, that Zoega quarrels with Warburton for having given nearly the same interpretation to the words τοὺς ἱεροὺς τῶν στοιχείων χαρακτῆρας, *the sacred characters of the elements*, as I have done. Warburton has perhaps mistaken the sense of the first part of the sentence; and if he had put a comma after λοιπῶν, he might have omitted the τε, which he introduces very gratuitously. But after repeatedly reading the objections of the learned Dane, I am unable to discover how he understands the words in question. It seems only clear, that he will not have them to signify either phonetic hieroglyphs, or letters. But Plato has said that Theuth, or Thoth, surnamed each letter an *element* (στοιχεῖον); and Philo Byblius, the translator of Sanchoniatho,

could hardly have been ignorant of this. In another place he makes the Phœnician historian say, that Taautus had discovered *τὴν τῶν πρώτων στοιχείων γράφην—the art of writing with the first elements;* or literally, *the writing of the first elements.* These elements could surely be nothing else than letters, or hieroglyphic characters.

We have seen, that Anticlides, cited by Pliny, argued from Egyptian monuments, that Menon invented letters in Egypt, fifteen years before the time of Phoroneus. Should we not read *Menin,* or *Menan,* for *Menona;* and understand generations, or perhaps ages, for years? Sir John Marsham thinks we should; and pronounces Menis, or Menas, who was the first King of Egypt, to have been the same with Osiris; nor are the arguments light by which he supports his opinion. Osiris was slain by Typhon; Typhon was symbolised by a hippopotamus; and Menis was killed by a hippopotamus. (Compare Syncellus p. 54. Diodorus L. 1. Eusebius Præp. Evang. L. 3. Plutarch de Iside.) This statement goes far to identify the real king with the fabulous deity. I observe also

that Vossius says, *sane Æliano L. xi. Hist. Animal. cap. x. bos iste Μῆνις vocatur. Præterea Μῆνις et Μνεῦις valde vicina sunt.* The sacred bulls Apis and Menis, or Mnevis, were both consecrated to Osiris, and were worshipped as Gods. (Diodor. Sicul. L. 1.) But Apis, the bull of Memphis, was more peculiarly consecrated to the Moon, while Mnevis, the bull of Heliopolis, was sacred to the Sun. (Euseb. Præp. Evang. L. 3. et Suidas in voce *Μέμφις.*) It would seem then that the bull called Mnevis was adored as an emblem of Osiris and of the Sun; and that the name was given to the sacred animal from Menis, who was the same as Osiris. Pliny tells us that Ramestes, as he calls him, placed an obelisk on the site of the palace of Mnevis. (L. 36. c. 8.) Now if King Menis were the same with Osiris, Thoth, it will be remembered, is said by Diodorus to have been the friend, the counsellor, and the secretary of Osiris. According to Manetho, Athothes was the son of Menis; and Eusebius says, Athothes is the same whom the Egyptians call Thouth, the Alexandrians Thoth, and the Greeks Hermes;

(Præp. Evang. L. 1.) and the Germans, among whose woods and wilds the Egyptian mythology had penetrated, celebrated in their ancient songs *Tuito* (Thouth) whom the Earth brought forth, and his son *Man* (Menis; or Men, as Herodotus writes the name,) the founders of the nation. (Tacitus de Mor. Germanor.) If then we understand Anticlides to have meant Men, Menas, or Menis, as he is variously called by the Greek historians, this writer referred the invention of letters in Egypt to the same age as Plato has done, since it must now seem clear that Menis and Thoth were contemporaries.

According to Sanchoniatho, Taautus was the secretary (γραμματεὺς) of Kronos. But Servius says, *Apud Assyrios autem Bel dicitur quadam sacrorum ratione et Saturnus et Sol.* (in 1. Æn.) The following words of Damascius are preserved by Photius: *Φοίνικες, καὶ Σύροι, τὸν Κρόνον Ἦλ, καὶ Βῆλ, καὶ Βολάθην, ἐπονομάζουσι—The Phœnicians and Syrians call Saturn El, and Bel, and Bolathen.* These were all solar titles; and the Phœnicians, therefore, in calling Taautus, or Taut, the secretary of Kronos, did not essen-

tially differ from the Egyptians, who, according to Diodorus, named Thoth the secretary of Osiris; since Kronos was one personification of the Sun, and Osiris was another. There is, however, a passage in Sanchoniatho, or rather Philo Byblius, cited by Eusebius, (Pr. Ev. L. 1.) which not only identifies the Phœnician Taut with the Egyptian Thoth, but positively asserts the former to have invented letters. *Πρῶτός ἐστι Τάαυτος ὁ τῶν γραμμάτων τὴν εὕρεσιν ἐπινοήσας, τῆς τῶν ὑπομνημάτων γραφῆς κατάρξας, ὃν Αἰγύπτιοι Θωύθ—Taautus primus literas excogitavit, et ad memoriæ subsidium scribendi auctor fuit; quem Ægyptii vocant Thouth.*

The same Philo says, that Sanchoniatho composed his history, *Τοῖς ἀπὸ τῶν ἀδύτων εὑρεθεῖσιν ἀποκρύφοις Ἀμμουνέων γράμμασι συγκειμένοις, ἃ δὲ οὐκ ἦν πᾶσι γνώριμα—Cum iis, quæ reperta sunt in adytis reposita, arcanis Ammoneorum literis, quæ non sunt omnibus notæ.* Bochart, who has quoted this passage, thus explains it: *Ammoneorum, id est* חמנים, *ammanim (chamanim), quod alii simulachra exponunt, sed LXX τεμένη, Ezech.* vi. 46; *Hieronymus fana,* 2 *Paral.* xiv. 4, *et delubra, ibid.*

xxxiv. 7; *et Es.* xvii. 8, *et* xxvii. 9. *Aben Ezra in Levit.* xxvi. 30. *templa facta ad cultum Solis. Quod verissimum; Sol enim Hebræis est* חמה, *amma, (chamma) unde* חמן *amman, (chamman) templum Solis, quem solum cœli dominum crediderunt prisci Phœnices. Sanchoniathon:* τοῦτον γὰρ (τὸν ἥλιον) θεὸν ἐνόμιζον μόνον οὐρανοῦ κύριον. *Itaque hic præcipue cultus. Tamen crescente superstitione, crediderim nomen* חמנים, *etiam ad alia delubra pertinuisse. Itaque literæ Ammuneorum, seu* חמנים, *sunt literæ templorum, literæ in sacris receptæ.* I shall venture to give some further explanations. The *amanim*, or *chamanim*, appear to have been solar images. We find in Isaiah (c. xvii, 8.) the following words— ולא ירא האשרים והחמנים, which are generally understood to signify, *et non videbit lucos et delubra.* But both *asherim* and *chamanim* were probably names originally given to groves and temples from certain images placed in them, which were emblems of the Gods of the Tsabaists, among whom the Sun held the first rank. R. Solomon says of the *chamanim; idola erant quæ ponebant super tecta, et quia Soli erant exposita, appellabant ea chamanim.* (ad Levit.

xxvi. 30.) In commenting on the words cited above from Isaiah, R. D. Kimchi observes that the Solar images, the *chamanim*, were so called from having been first fabricated by the descendants of Cham. These *chamanim* are described in the itinerary of Benjamin Hebræus as idols of the Sun, which every morning sent forth a loud sound at the rising of that luminary. Similar statues and images were fabled to have existed in Egypt and Ethiopia; at least this may be fairly inferred from the story told by the Greeks of Memnon's statue. Now Memnon, it is to be observed, was otherwise called *Amenophis;* and I can have little doubt that this name is a corruption for *Amen-nouphi;* or *Amen-nphi;* the good Amen; or Amen guardian, or preserver. The name of Memnon is a Greek corruption which defies the etymologist; but he may conclude that the name of Amen entered into it. Accordingly, when the Greeks became better acquainted with Egypt, they were obliged to identify Memnon with *Amenophis.* Of this the inscription on one of the legs of the statue of Memnon is a proof. The question then is,

whether Amenophis, *Bonus Amen*, or *Amen Custos*, as we choose to translate it, were not originally prefixed by the harsh aspirate? May not the statue, or idol, of Memnon have been called *Chaman-nouphi*, or *Chaman-phi?* The difference between Aman, Amen, and Amon is nothing. The Egyptians in ancient times probably, I may say certainly, often omitted vowels, like the Hebrews and Arabs. These the Greeks supplied as well as they could. The Copts have inundated their dialect with vowels.

By the words ἀποκρύφοις Ἀμμουνέων γράμμασιν, Philo seems to me to have meant the arcane letters which were in use among the worshippers of Amon. If this deity however had been peculiar to the Egyptians, it would be vain to suppose that Sanchoniatho found historical records of the Phœnicians written in letters employed by the priests of a local God. Most learned men were formerly agreed in deriving the name of Amon from that of Cham, until the celebrated Jablonski turned the tide of opinion, both with regard to this name, and with regard to the names of most of the deities of ancient Egypt.

These names, he contended, ought to be sought for in the Coptic language; and as his argument seemed plausible, his system was easily admitted. But his etymologies, with very few exceptions, are incapable of bearing the scrutiny of criticism. That which he gives of Amon is totally erroneous, and untenable. He begins by telling us, that Iamblichus, *si in Ammone agnovisset Solem, illiusque numen, ad notiones metaphysicas cerebri sui non infeliciter contorsisset, et invitum inflexisset, veram profecto nobis etymologiam nominis istius promeret. Sic enim is de Mysteriis*, Sect. viii. c. 3. ὁ γὰρ δημιουργὸς νοῦς—ἐρχόμενος μὲν ἐπὶ γένεσιν καὶ τὴν ἀφανῆ τῶν κεκρυμμένων λόγων δύναμιν εἰς φῶς ἄγων, Ἀμῶν κατὰ τὴν τῶν Αἰγυπτίων γλῶσσαν λέγεται—*Opifex quippe mens, quatenus ad generationem descendit, et incognitam rationum latentium vim producit in lucem, lingua Ægyptiaca dicitur Amon.* But Iamblichus gives no authority for the conclusion which the learned Pole endeavours to draw from his words. The Greek writer merely tells us, that the demiurgic intelligence, proceeding to generation, and bringing into

light the obscure power of latent reasons, (that is, the demiurgic intelligence, making manifest, by the generation of living beings, the hidden power by which causes produce effects,) is called *Amon* in the Egyptian language. He does not say, that the word *Amon* signifies all this. Jablonski pretends that the name is ⲞⲨⲰⲞϨⲞϬⲒⲎ, *amouoein*; that it is composed of ⲁⲨⲰⲞϨ, *amou*, and ⲞϬⲒⲎ, *oein*; and that it signifies *lucem educens*. But ⲁⲨⲰⲞϨ, *amou*, is, and can be nothing else than the second person singular imperative, signifying *veni*, as ⲁⲨⲰⲰⲒⲎⲒ, in the plural, signifies *venite*. Then the word for light is not *oein*, but *ouoini*. Thus *amou-oein* makes neither sense, nor Coptic.

The Greek strangers, who visited Egypt, appear to have been often deceived concerning the meaning of Egyptian words and names by the interpreters, who, as we learn from Herodotus (L. 2.), were generally the descendants of those Ionians, who had settled in Egypt during the reign of Psammeticus. These interpreters, being asked the meaning of a name, most probably took some word which sounded like it,

and thus solved the difficulties which had perplexed their employers. To the ingenuity of these *ciceroni* we probably owe such etymologies, as Plutarch and Aristides have given us of the names of Osiris and Canobus. With regard to the names of Egyptian deities, we should remember, that it is expressly stated by Manetho, that the ancient Egyptians possessed a sacred language. The names of their Gods were therefore probably formed out of this language, and not out of the vulgar dialect.

Jablonski says, in his usual dictatorial style, *quisquis theologiæ Ægyptiacæ genuinam indolem studiose et serio investigaverit, nunquam se induci patietur, ut credat, Amun Thebæum esse Chamum Noachidem.* It has been, however, the opinion of some of the most learned men of modern times, that the name of Amon was derived from that of Cham, who was deified, and worshipped as a personification of the Sun, by the heliolators of various countries, and particularly by those of Egypt. Jablonski's principal argument seems to be, that the name of Amon commences with an open vowel, while that of חם, Cham, begins

with the harsh aspirate; and that the name of Egypt (the land of Cham) in Coptic is written *Chemi* and *Kame*. Is this argument conclusive? Did the Egyptians, when they pronounced, or wrote, foreign words, (and Cham was originally a Hebrew word,) never change the harsh aspirate into an open vowel? Did they never exchange, in their own language, the harsh for the soft aspirate, and this again for the open vowel? If they did, Jablonski's argument is not conclusive; and whether they did, or not, make such changes, the reader will judge from the following examples. The Coptic word ⲁⲥⲟⲩⲗⲓ, *asouli, locusta*, is derived from the Hebrew חסיל, *chasil, locusta*—ⲁⲩ, *au*, or *av, da, redde*, from the Hebrew חב, *chab*, or *chav, da, redde*—ⲁϣⲓⲣⲁ, *ashira, chamæleon*, from the Arabic خشرة, *chashira, serpens, reptile, &c.*—ⲉⲩⲟ, *euo*, or *evo, debitor*, from the Chaldaic and Syriac חיבא, *chiba*, or *chiva, debitor*, and from the Hebrew חב, *chab*, or *chav, debuit*—ⲉⲣⲭϣ, *erdjo*, or ⲉⲣϣ, *ersh, gallina*, from the Arabic خرز, *charz, gallina*—ⲓⲏⲥ, *ies, festinare*, ⲓϣⲥ, *iōs, celeritas*, ⲟⲩⲓϣⲥ, *ouios, celeriter*, from the

Hebrew חוש, *chosh, festinare*—ⲟⲛⲉϩ, *oneh, mansio, habitatio*, from the Persian خانه, *chanah, domus*. In their own language the Egyptians employed different dialects, and according to those dialects they changed the harsh aspirate for the soft, or omitted it altogether. Thus ⲁⲗⲁⲕ, *alak, annulus*, in the Coptic dialect, becomes ϩⲁⲗⲁⲕ, *halak*; in the dialect of the ancient inhabitants of the Thebais. In like manner ⲉⲣⲙⲁⲛ, *erman, malum punicum*, is sounded ϩⲉⲣⲙⲁⲛ, *herman;* and ⲁⲣⲉϩ, *areh, custodire*, is written ϩⲁⲣⲉϩ, *hareh*. Again we find the harsh aspirate supplied by the soft—ϩⲱⲧ, *hot*, for ϧⲟⲧ, *chot, pinguis;* ϩⲓⲣ, *hir*, for ϧⲓⲣ, *chir, via;* ϩⲏⲃⲥ, *hebs*, for ϧⲏⲃⲥ; *chebs, lucerna*. Sometimes we meet with an open vowel preceded by the guttural letter ⲭ—as in ⲭⲟⲩⲱⲙ, *khouom*, for ⲟⲩⲱⲙ, *ouom, prandium*—ⲭⲟⲩⲁⲃ, *khouab*, for ⲟⲩⲁⲃ, *ouab, sanctus*. From these examples, which I have chiefly collected from Rossi and La Croze, the reader will judge, whether it can be argued to much purpose, that the name of Amon could not be derived from that of Cham, because the

name of the former begins with an open vowel, and that of the latter with an aspirate.

It appears from what I have before stated, that Cham was deified, and adored in Asia as a personification of the Sun. His images were called *Chamanim* in Judea. The Persians and Cappadocians seem to have originally known his idol by the name of خمن *chaman*, or *choman*. We may recognise the name of the patriarch in the solar title, which the Babylonians wrote חם־עו־בל—*Cham-az-Bel, Cham potens dominus.* The Hebrews gave the denomination of חמה, *chamah*, to the Solar orb. (Isa. xxiv. 23.) Shall we believe then, that Cham did not rank as a deity among the idolators who dwelt in the land of Cham? In the Egyptian language *Cham-On* would be equivalent to *Cham-Sol.* Ὼν δέ ἐστι κατ' Αἰγυπτίους ὁ Ἥλιος (Cyrillus in Hoseam.)

But it may be still argued, that Cham was the God adored at Chemmis; that this was a deity totally distinct from Amon; and that the difference between the names is clearly marked in the writings of the Prophets, in which Thebes, the city where Amon was worshipped with pe-

culiar devotion is called אמון־מנוא, *Amon-manoa*, (Jerem. xlvi.) המון־נא, *Hamon-no*, (Ezech. xxx.) נא־אמון, *No-Amon*, (Nahum iii.) The sacred writers probably followed the usual pronunciation; nor is it questioned that the Egyptians pronounced and wrote *Amon*, or *Hamon;* but this argument is of no avail, since it has been proved, that they frequently dropped the harsh aspirate, and replaced it by a vowel, and still oftener by the soft aspirate. It may even be suspected, that they sometimes pronounced the harsh aspirate in speaking, and dropped it in writing. They wrote *emsah* (a crocodile); and Herodotus, judging no doubt from his ear, has written this word χάμψας, *champsas*. The priests might have had their mystic reasons, in which they were rich, for changing *Chamon* into *Hamon*, or *Amon*, in some examples, while they retained the harsher pronunciation in others. When the deified patriarch was to represent the Sun, adored as the source of heat and of life, the symbol of the generative power was called *Cham*, or *Chem*, because the signification of the name accorded with the attributes ascribed to

the deity. Under these circumstances the personified Sun was probably denominated Cham, or Chem, in the isle of *Chemmis*, where the generative principle was worshipped by the name of Cham in conjunction with Isis, the universal mother. Hence the name of the isle, *Chem-Isi*, which the Greeks changed into Chemmis. Adored as the God of generation, Cham might have been frequently called *Cham-osh*, which would signify in Egyptian *the great Cham;* nor is it unlikely that this was the signification of the name, which the Moabites probably borrowed from the Egyptians, and gave to their idol כמוש, *Khamosh*. I am of opinion, that Cham, the progenitor of the Egyptians, was originally worshipped by that people as a personification of *Sol Generator*. In process of time, however, they associated Cham with the Sun, when that luminary retrograded at the vernal equinox, (nearly seven centuries after the deluge according to the chronology of the LXX,) out of the constellation of Taurus into that of Aries. But it was still as the symbol of the generative principle, that *Cham-On* was adored in this constella-

tion. Proclus says, *κριὸν οἱ Αἰγύπτιοι διαφερόντως ἐτίμων διά τε τὸν Ἄμμωνα κριοπρόσωπον καθιδρύμενον, καὶ ὅτι, ΓΕΝΕΣΕΩΣ Ο ΚΡΙΟΣ ΑΡΧΗ, κ. τ. λ. The Egyptians peculiarly venerated the ram, because Ammon had the face of that animal, and because the ram represented the generative principle, &c.* Jablonski quotes the following words of Eustathius—*τῶν δέ τις μεγάλων φιλοσόφων Ἀμοῦν καὶ πατέρα εἰπεῖν ταὐτὸν εἶναι ἱστορεῖ—Philosophus aliquis magnus tradidit, dicere Amun et patrem idem valere.* I can trace this notion to no other source than to the identity of Amon and Cham, since Cham was the common father of all the Egyptians.[1]

[1] Doctor Prichard, in a work of much general merit, blames Jablonski for considering Amon as the representative of the Sun in Aries. The Doctor objects to the response attributed to the Clarian Oracle, that it was a forgery of some sect of Christian heretics, and that Jablonski himself admits it to be a fragment of Gnostic mysticism. It was indeed very likely to have been framed by the Phibionites. But still we cannot speak positively. We find the name Ἰάω used to represent יהוה in Diodorus; consequently before the Christian æra. The priests of Claros may have be-

According to Diodorus Siculus, Osiris dedi-

lieved the God worshipped by the Jews to have been, like their own deity, no other than the Sun.

With regard to Amon I entirely agree with Jablonski, that in one sense he was considered as the Sun in Aries, though in another sense he may have been understood to have been the demiurgic intelligence. It is clear, that Amon was a solar symbol. With the Libyans, as we learn from Macrobius, (Saturnal. L. 1.) he was the setting Sun. Other nations may have associated him with that luminary under other circumstances. Belus, Kronos, and Apis, were solar symbols, and Nonnus ranks Amon with these.

Βῆλος ἐπ' Εὐφρήταο, Λίβυς κεκλημένος Ἄμμων,
Ἄπις ἔφυς Νείλωος, Ἄραψ Κρόνος, Ἀσσύριος Ζεύς.

Amon was clearly understood by the mythologists to represent the Sun in Aries. Isidorus (Orig. L. 3.) relates, on the authority of Nigidius, that Bacchus placed a ram among the constellations, for having conducted his army to a fountain in the midst of the desert; and that he called this ram Ammon. Now, however idle this story may be, (and it is repeated by Hyginus and Leo Africanus,) it proves that the mythologists connected Amon with the constellation of Aries. Why, indeed, if Amon did not represent the Sun in that constellation, is he represented with the head and horns of a ram? Why do we find in the Egyptian zodiacs, in the dodecatemorion of Aries, an image exactly resembling that of Amon, as described by the Greeks?

cated two golden shrines at Thebes to Jupiter, the larger was founded in honour of the celestial Jupiter, and the other in honour—τοῦ βεβασιλευκότος, καὶ πατρὸς αὐτῶν, ὅν τινες Ἄμμωνα καλοῦσι—*of him who had reigned there; of their father, whom some call Ammon.* The Greek poets, says the same writer, hail Jupiter—Πατὴρ ἀνδρῶν τε Θεῶν τε—*Father of Gods and men;* and he tells us in the next page, that Jupiter was by some surnamed Ammon. He might have observed, that all the Greeks understood the Egyptian Ammon to be the same with Jupiter. Herodotus says, Ἄμμοῦν γὰρ Αἰγύπτιοι καλέουσι τὸν Δία—*the Egyptians call Jupiter Ammoun.* But according to the verse cited by Macrobius, Jupiter, Pluto, *Sol,* and Dionysus, were one and the same.

Εἷς Ζεὺς, εἷς Ἀΐδης, εἷς Ἥλιος, εἷς Διόνυσος.

May we not argue then, that the Egyptians, in raising their common father, Cham, to the honours of the apotheosis, identified him with *Sol Genitor?* Among the mortals whom the

Egyptians deified, Diodorus reckons Jupiter Ammon.

Amon appears to have been worshipped not only as *Sol in Ariete*, but as *Sol inferus*. Diodorus, as we have just seen, places him in opposition to the celestial Jupiter, and we may consequently consider him as the *Jupiter Stygius* of the Egyptians. According to Manetho, as we learn from Plutarch, Amoun signifies τὸ κεκρυμμένον, καὶ τὴν κρύψιν—*occultum, et occultationem.* This seems to identify Amon with Osiris, or Adonis, in short with *the hidden one*, for whom the Egyptians made an annual search. (Plut. de Is.) Now this *hidden one*, by whatever name invoked, was no other than the Sun.

Ogygia me Bacchum vocat;
Osirin Ægyptus putat.

Or as Martianus Capella addresses that luminary—

Hinc Phœbum perhibent prodentem occulta futuri;
Vel quia dissolvis nocturna admissa, et Isæum
Te Serapin Nilus, Memphis veneratur Osirin,
Dissona sacra Mithram, Ditemque, ferumque Typhonem;
Attin pulcher item, curvi et puer almus aratri,
Ammon et arentis Libyes, ac Byblius Adon!

The reader will judge, whether the Egyptians might not have changed the name of Cham into Amon, when they meant to speak of the deified patriarch as identified with *Sol inferus*. In the Coptic, the word for *Hades* is ⲁⲙⲉⲛⲧ, *ament*. Plutarch writes it ἀμένθη, *amenthe*. (De Is.) Again, ⲉⲙⲉⲛⲧ, *Ement*, signifies the *west*, the *west wind*, in Coptic: La Croze renders it λὶψ, *Africus*, &c. Now, as Amon was at least occasionally considered as *Sol inferus*; as Libya was named *Ammonia* after this God; and as the Libyans held him to be the representative of the setting Sun; the word *ammon*, *amon*, or *amoun*, may have borne, perhaps, in the sacred language of the priests, the sense which Manetho has given to it.

The worship of Amon was, however, extended far beyond the limits of Egypt. In some instances the harsh aspirate seems to have been retained; and in others to have been thrown away. The Greeks, from whom we obtain most of our information, were always ready to dispense with it, because their χ is equivalent to the Hebrew כ, but not to the Hebrew ח, or

indeed to the Coptic ⲗ. The Latins followed the example of the Greeks, whose orthography they endeavoured to imitate in writing what both called barbarous names.

Stephanus Byzantius says, *Ἀμμωνία ἡ μεσόγειος Λιβύης· καὶ αὕτη δὲ πᾶσα ἡ Λιβύη οὕτως ἐκαλεῖτο, ἀπὸ Ἄμμωνος—Ammonia was a mediterranean country of Libya; and indeed all Libya is called after Ammon.* We learn from Pliny (L. 6.) that there was a temple of Hammon in the isle of Meroë; and we may besides presume from another passage in the same author (L. 10.), that the worship of Ammon was general in Ethiopia. Strabo (L. 11.) mentions an idol of the Persians named *Amanos;* and he also speaks (L. 15.) of the rites performed by the Cappadocians in the temples of *Anaitis* and *Omanos.* Deprived of their Greek terminations the names of *Amanos,* and *Omanos,* become *Aman,* and *Oman;* and seem to be the same with Amon. Lucan says, (L. 9.)

Quamvis Æthiopum populis Arabumque beatis
Gentibus atque Indis unus sit Juppiter Ammon.

We may now, I think, safely pronounce, that

this deity, who was worshipped from Mount Atlas to the banks of the Ganges, was no other than Cham, adored as a God, and identified with the Sun, by the Tsabaists. The Egyptians may have changed his name into Amon, and may have ascribed to him various attributes and qualities suggested by their own peculiar notions. The Greeks could scarcely quarrel with a name so easily written as Ammon, or Amon; and if they found the name preceded by the harsh aspirate in other languages, they cared not to retain it. But the worship of the deity called Amon by the Egyptians, and after their example by the Greeks, would not have been spread over half the world, if it had originated with the priests of Thebes, and had not been as old as the apostacy of the postdiluvian Tsabaists.

Let us now return to Sanchoniatho. He compiled his history, according to Porphyry, *out of the records of each city, and out of the anagraphs in the temples*—ἐκ τῶν κατὰ πόλιν ὑπομνημάτων, καὶ τῶν ἐν τοῖς ἱεροῖς ἀναγραφῶν. According to Philo Byblius, as we have already seen, the historian consulted the *arcane letters, or charac-*

ters, of Ammoneans, which he found in the inner recesses of the temples. The researches of Sanchoniatho were probably made in Phœnicia. But I cannot agree with Bochart, in understanding *arcane letters of Ammoneans* to signify *literæ templorum*. I rather think that the letters in question were those which were employed in different countries by the Tsabean worshippers of the Sun, who adored that luminary under the name of Cham: And here I will explain, how I conceive this name to have been first changed into Chamon. The Phœnicians, the Syrians, and the Chaldeans, who, in the first ages after the flood, fell into the errors of the Tsabaists, and who identified Cham with the Sun, and considered their common father and progenitor as the symbol of *Sol Generator*, may have added the intensitive *on* to his name, and have called him חמון, *Chamon*, which would be equivalent to the *great Cham*. The Egyptians, in catching this sound, would understand it to signify in in their language ϫⲘⲞⲨ, or ϧⲘⲞⲨ-ⲰⲎ, *Cham-On, Cham Sol*. The Persians probably denoted the Sun by the same name; but if we can trust

to the Greeks, the deity whom they worshipped was named *Aman*. They must then have thrown away the harsh aspirate; nor is this improbable. In doing so, they would convert the name into a word in their own language, in which امن, *aman*, signifies *circuit, circumference*. Now the reader will remember, that according to Herodotus, the Persians worshipped the *circumference* of the heavens; and it was probably to Aman, mentioned by Strabo, that this worship was addressed; but still we are to understand, that it was the Sun making the circuit of the heavens in his apparent diurnal revolution, which was the real object of Persian devotion.

Now the priests of Chamon, or Amon, established in different countries, may have employed the same characters, which were understood by them all, though they spoke different languages, according to the nations to which they belonged. Thus the Chinese and Japonese, who do not understand each other in speaking, can correspond by means of writing, without any difficulty. The inhabitants of some provinces of China do not understand the dialects spoken in

other provinces, but all the Chinese who can write understand each other when they take up the pen.

Democritus, as we learn from Diogenes Laertius, wrote a book περὶ τῶν ἐν Μερόῃ ἱερῶν γραμμάτων, *concerning the sacred letters, or characters, in Meroë.* But we have already seen from Pliny, that there was a temple dedicated to Ammon, or Hammon, in that island; and it may not be unreasonably presumed, that the letters, of which Democritus treated in his book, were those which were employed by the priests of that deity. Heliodorus (L. 1.) mentions having seen a roll written with Ethiopian letters, which were not demotic, but royal, and which resembled those called hieratic by the Egyptians. Democritus also wrote a book concerning the sacred letters in Babylon. These sacred letters, I conceive, were the same with those employed by the priests of Hammon in the isle of Meroë; and I am thus induced to consider the sacred letters employed by the Egyptians, Ethiopians, and Babylonians, to have been similar to those of which Philo speaks. Now these letters would

perhaps be more properly designated phonetic hieroglyphs, which were also symbolic. Heliodorus says that the roll of which he speaks was written with royal letters (γράμμασιν βασιλικοῖς); and according to Sanchoniatho, Taautus invented marks, or signs of royalty (παράσημα βασιλείας) for Kronos, which were four eyes, and four wings, the symbolical meaning of which he explains.

I am disposed to think, then, that the original characters employed by the Tsabaists, or rather by their priests, were hieroglyphs, some of which were symbolic only, while others were both symbolic and phonetic. The inconvenience of expressing their thoughts by pictures, images, and emblems, would however soon be felt by those who employed such means. Reflection and experience would teach the priests, that the graphic art could be rendered perfect, only by choosing signs which should represent either ideas, or words. The first of these modes has been finally adopted by the Chinese. Each of their characters represents an idea, without being either the picture of the object, or the sign of

the word by which it is expressed in spoken language. The second mode was originally essayed by means of phonetic hieroglyphs. In the beginning, these were probably employed to express complete words: but the difficulty of executing this plan would soon cause it to be laid aside. The introduction of phonetic hieroglyphs for words would, however, lead to the invention of letters. It would be observed that certain elemental sounds are uttered by the voice in articulating all words, and that these sounds are few in number. The graphic painter would then choose different hieroglyphs, which should be the symbols of each of these sounds; and he would soon find that by the combinations of the hieroglyphs which he had so chosen, he could represent to the eye any word he thought fit to express.

But still these hieroglyphic symbols of vowels and consonants must have been very inconvenient. They were contracted, and altered by degrees, until in most instances their original forms can no longer be recognised in alphabetic letters.

The first phonetic hieroglyphs, employed to indicate elemental sounds, were probably mimetic pictures of objects, of which the name in speaking began with the sound that the graphic painter or sculptor wished to express. M. Champollion observes, that the Egyptians denoted the vowel *a* by the figure of an eagle, because the word for that bird in Egyptian is *achom*. In like manner the consonant *m* was represented by an owl, of which the name is *mouladj*. Other examples are mentioned by the same ingenious writer.

In other countries similar processes probably led to similar results; and as we lose sight of the phonetic hieroglyphs in the demotic characters in use among the Egyptians, so we are generally unable to discover in the letters, employed by various other nations, the signs and symbols from which those letters were originally copied. There are, however, a few exceptions to be made to this observation. Some of the letters of the Phœnicians and Chaldeans may, I think, be traced to the hieroglyphs whence they were first derived. Even in the demotic cha-

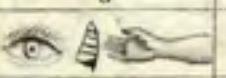
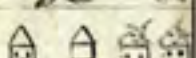
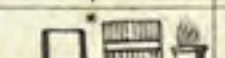
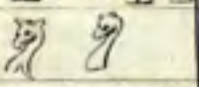
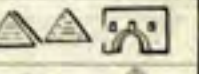
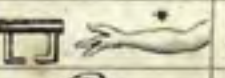
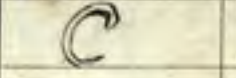
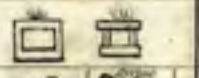
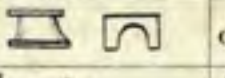
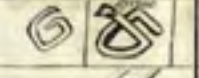
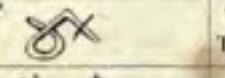
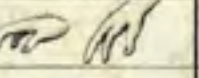
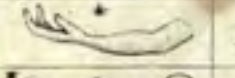
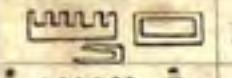
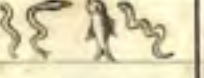
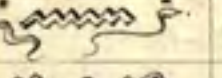
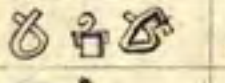
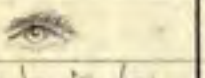
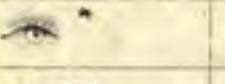
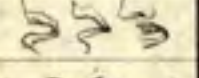
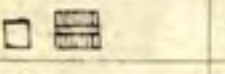
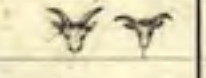
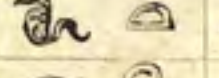
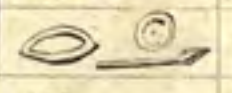
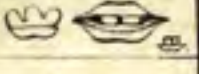
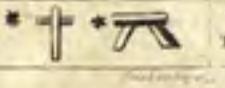
racters of the Egyptians, a few can be referred to the original hieroglyphs. It is remarkable, that the Egyptians are the only people, who, after they had invented alphabetic letters, retained the use of hieroglyphic characters.

Upon the whole then, I am inclined to think, that in endeavouring to ascertain the most ancient forms of graphic characters, we must confine ourselves to those of the Egyptians, the Chaldeans, and the Phœnicians. In comparing these forms we shall be enabled to judge, whether each nation invented its own alphabetic characters; or whether from their similarity in some instances, and their dissimilarity in others, we should not refer them all three to one common origin, from which they made a choice of the hieroglyphs from which they formed their letters.

Hiero-glyphs	Linear Hiero-glyphs	Hieratic Letters	Demotic	Coptic	Sama-ritan	Phœni-cian	Syriac	Palmy-rian	Galilean	Chaldaic	Arabic	Cufic	Ancient Greek	Etrus-can	Roman
										א	ا				A
										ב					B
										ג					GH
										ד					D
										ה					E
										ו					V O U
										ז					Z
										ח					H CH
										ט					T TH
										י					I
										כך					C CH KH
										ל					L
										מם					M
										נן					N
										ס					S
										ע					Oin or Ain
										פף					P
										צץ					TS
										ק					Q
										ר					R
										ש					SH
										ת					T TH

COMPARATIVE TABLE OF HIEROGLYPHS AND LETTERS.

N°2

	Chaldaic Letters 1	Probably the Original Chaldaic Hieroglyphs 2	Phœnician Letters 3	Probably the Original Phœnician Hieroglyphs 4	Egyptian Letters 5	The Original Egyptian Hieroglyphs 6	
1	א						A
2	ב						B
3	ג				Deest	Deest	G
4	ד						D
5	ה						E
6	ו						O V U
7	ז			Deest	Deest	Deest	Z
8	ח						CH
9	ט						T TH
10	י						I
11	כך						K
12	ל	Deest		Deest			L
13	מם	Deest		Deest			M
14	נן						N
15	ס			Deest			S
16	ע						
17	פף						P
18	צץ						TS
19	ק	Deest		Deest			Q
20	ר			Deest			R
21	ש						SH
22	ת			Deest			T TH

In Columns 5 & 6 the Egyptian Hieroglyphs marked with an Asterisk are supposed as the probable forms from which the Letters were copied. The rest are taken from M. Champollion's phonetic Hieroglyphs, and accord with the letters which he has assigned to them.

NOTES.

1. OF the two forms of hieroglyphs, which I have given of the Chaldaic *alepha*, one is copied from a manuscript, and the other from a coin. It is pretty plain then, that the ℵ represents a branch; and from this circumstance I should think it not unlikely that the letter did not bear the same name among the ancient Chaldeans, as the Jews gave to it, when they adopted the Chaldaic alphabet. Perhaps the Chaldeans named it אמיר, *amir*, *ramus arboris*.

The Phœnicians always denominated their first letter *aleph*; and as the Jews wrote with the Samaritan letters, which were Phœnician, or, (as the Jews prefer naming them,) letters of Lebanon, before the captivity, they continued to call their first letter by the name which the Phœnicians had given to it.

The word אלף, *aleph*, signifies *dux*, *taurus*, *bos*. Plutarch tells us, (Sympos. L. 9.) that the Phœnicians named their first letter an ox; and Hesychius gives us to understand that the *alpha* represented the head of an ox. The form

of the Phœnician letter seems to justify the remark of Hesychius.

2. The name of the letter בית, *bith*, or *beth*, indicates the original hieroglyph to have represented a house, or temple. But the reader will observe a difference between the two Phœnician forms of the letter. The first form is that of the house, or temple; in the second, another figure seems to have been combined with the first. It is probable then that the Phœnicians had originally two hieroglyphs for the letter, and consequently two words by which they named it. They may have combined the two hieroglyphs in the sequel, and have retained only one of the names. This compound hieroglyph seems to be composed of the *bith*, or house, and of the head and horns of some animal placed over it. I imagine the name of the additional hieroglyph was בוקר, *boker*, an ox, or a wild goat, for the versions differ. If this conjecture be well founded it will explain, how Hesiod (as Plutarch mentions) came to assert, that the second or third letter of the Phœnicians was represented by an ox.

3. The name of the letter גימל, *ghimel*, is sounded *gomel* by the Syrians, and was apparently written *gamel* by the Phœnicians, as the Greek corruption is *gamma*. The hieroglyph, from which the letter was taken, probably represented a *camel*, which is the signification of גמל, *gamel*; and the letter gives us the figure of the head of that animal.

4. דלת, *daleth*, signifies a gate, a door—a leaf, a leaf of a book. The *daletholh* were triangular tablets.

5. The letter ה, *he*, is represented by a form resembling an altar in the Egyptian hieroglyphs, and not very dissimilar to the Chaldaic form. But I suspect, that the original Chaldaic name of this letter was האח, *hach*, which signified the same thing as אח, *ach, a small altar; the fire which burns on the altar.*

The Phœnicians had two forms of this letter, and probably two names for it. One form resembles the Chaldean ה, and the other a Roman E reversed. According to M. Champollion a hand and arm frequently represent the letter A; and the hand is held in different positions. I should extend this symbol to other vowels. In fact several letters are clearly to be traced to hieroglyphs representing the hand. In the example before us, the hieroglyph appears to have been that which I have endeavoured to design in the table.

6. There is only one word in Hebrew beginning with a ו, *vau;* and that is וו, *vau*, the name of the letter, which signifies a hook. The reader will compare this letter with the Phœnician and Egyptian forms, and judge for himself.

7. I suspect the name of the letter ז, *zain*, to have been corrupted from זית, *zit*, or *zet*, which signifies an olive-tree. The hieroglyph may have represented a branch of olive. The Phœnicians appear to have sounded the letter *zet*, or *zeta*, since the Greeks have named their copy from it *zeta*.

8. The letter ח, pronounced חת, *cheth*, derives its name

from חתה, *chathah*. But חת, *cheth*, signifies the same thing as מחתה, *machethah, acerra, thuribulum, ara*.

9. I consider the name of the letter טית, *tith*, or *teth*, to be a manifest corruption; and have little doubt that the original word was טטף, *tetheph*. This word, indeed, is not found in the singular; but it occurs in the plural, טטפת; and signifies *frontalia, phylacteria, &c.* These were fillets, or narrow slips of leather, which were fastened on the forehead, and to which was attached a small pouch in which was generally contained a sentence of the law. The Persians and Arabians wear similar amulets round their necks, and call them تغلين *tephlin*; these *tephlin* are inscribed with words from the Koran.

10. The word יד, *yad*, or *yod*, the name of the tenth Chaldaic letter, signifies *manus*. The reader may consult the table.

11. The eleventh Chaldaic letter was called כף, *caph*, which signifies *curvatura, curvitas, vola manus*.

12. I am unable to trace the letter ל, *lamed*, to its origin.

13. The name of the letter מ, *mim*, would lead us to suppose that the original hieroglyph represented water. Perhaps this name was merely chosen, because מים represents both forms of the letter.

14. The name of the letter נ, *nun*, appears to me to be Syriac, in which language *nun* signifies a fish, a serpent, &c.

15. The fifteenth Chaldaic letter is called סמך, *samech*. It is clearly derived from the verb סמך, *samach, nixus fuit*,

sustentavit, fulsit, &c. The noun does not occur; but there is no question that it must have existed. Did it signify that by which a thing is held, or sustained; or on which it is hung—a handle, or hook? The reader will consult the table, and judge whether this be likely or not.

16. The Chaldaic form of the ע, *ain*, or *oin*, bears no analogy to the word עין, *ain*, which signifies *oculus*. But among Phœnician and Punic letters, we find the one in question frequently represented by the pupil of an eye, as it is designated in the table. The Jews probably retained the Phœnician name of this letter, when they adopted the Chaldaic alphabet; though the Chaldeans, if we can judge from the form of the letter, had probably known it by another denomination—perhaps by that of ענף, *anaph, ramus arboris*.

17. The seventeenth Chaldaic letter is named פי, *phi*, which signifies a mouth.

18. The name of the letter צ, *tsade*, is derived, I presume, from צדה, *tsadeh, fera venando capta*. This *fera* was a deer, or antelope, because the meat of it was venison. (Gen. xlii. 25. and xlv. 21.)

19. I derive the name of the letter ק, *koph*, from קוף, *koph, circumivit*. It does not occur as a noun.

20. The reader will decide, whether, or not, I have succeeded in attempting to give the hieroglyph of the letter ר, *resh*, of which the name, ראש, signifies the head,—the crown of the head.

21. The reader will judge for himself, whether the letter ש, *shin*, (which name signifies a tooth,) represents שלש, three, or שני השנים, two teeth.

22. The letter ת, *tau*, may have been so named from תאוה, *tauh, finis*. Perhaps the original hieroglyph represented a buffalo, called תאו, *tau*, in Hebrew.

CHAPTER XII.

Chronological remarks concerning the origin and duration of the Egyptian monarchy.

THE subject of the present chapter is one of the most perplexing which can occupy the attention of the antiquary. He, who begins his enquiries with the establishment of the Egyptian monarchy, and who proposes to sail down the stream of time, accompanied and guided by the historians of old, soon discovers the numerous obstacles which must impede his course. The ancient authors, from whom he seeks information, require of him to carry back his imagination to an epoch many thousand years anterior to the existence of all written records; and they then gravely introduce him to the Gods and Demi-Gods, who had once condescended to dwell on the banks of the Nile, and to govern the favoured inhabitants of that fertile region. If impatient

of the fables told of these supernatural personages, he enquire, who was the first mortal prince who reigned over Egypt, he is encouraged by learning that the history of this prince is not quite unknown, and that his name was *Men*, or *Menes*, or *Menas*, or *Mines*, or *Menis*. But he soon finds out that the history of Menis greatly resembles that of the God Osiris; and he may thus well doubt, whether he have escaped, or not, from among the fictitious beings to whom he had been first introduced. Should he now look forwards, the prospect before him scarcely invites him to advance. He sees an immense interval between the position which he has taken, and any historical ground, where his path can be safe and his footing secure. He becomes aware that many impediments must be removed, before he can proceed on his way; and that many chasms must be filled up, before he can arrive at its termination. Neither is his distress lessened when he appeals to his guides. Not one of these agrees with another; and he, who is supposed to be the most accurate among them, is not only at variance with all the rest,

but is frequently found in direct contradiction with himself.

Fatigued with vain conjectures, and still unable to separate facts from fictions, the enquirer may resolve to change his plan, and may yet flatter himself with the hopes of unravelling the whole clue of Egyptian chronology. Let us observe him while he takes the only method which he can now pursue. Adopting the philosophical rule, he determines to proceed from the known to the unknown. He chooses in Egyptian history some comparatively recent and well attested fact, of which the date is considered as certain; and having in this manner obtained possession of one end of the chain, he hopes to find the link which is next to it, and thus to proceed from one link to another, until he reach the last. But this method, however ingeniously imagined, is unfortunately impracticable in the case before us. What indeed is the result, when this method is adopted? The chronologer pursues his way, trusting now to one guide, and now to another; and he has consequently always two, or three, or more authorities to dispute against, in favour of the one which he

admits. As he proceeds, he cannot but perceive that all his guides become more and more ignorant of the way. Their narratives abound with fictions sufficient to stagger all credibility; and the task of the chronologer is hard indeed, when he is left to make a choice among their mendacious reports. Thus is he compelled to build conjectures instead of establishing facts; to admit what is probable, where he cannot find what is certain; and to allow what is possible, where he cannot obtain what is probable. His difficulties augment in proportion as he removes further from the point, whence he had originally started. Like the traveller who sets out upon a journey when the day is closing, the light grows more feeble at every step which he takes, and the shades of night fall blacker and blacker around him, until he be at length enveloped in total darkness.

That probable dates may be assigned to the reigns of some Egyptian monarchs, before the conquest of their country by Cambyses, will be easily admitted; nor will it be disputed, that we can nearly ascertain the epochs, when some great events took place in Egyptian history.

But objections cannot be so soon silenced, when attempts are made to give us the æra of each of the Pharaohs, and to place their reigns in a regular series, and in chronological order.

The following authors are those, to whom the moderns chiefly refer in treating of Egyptian chronology—Herodotus; Diodorus Siculus; the anonymous writer of the old Egyptian chronicle; Manetho, as reported by Julius Africanus; Manetho, as reported by Eusebius; Eratosthenes; and Syncellus the chronographer. The name of Josephus may be added to the list.

I. According to Herodotus, Egypt was originally governed by eight Gods, of whom the most ancient was Mendes. To these eight succeeded twelve other Gods, who commenced their reign 17,000 years before that of Amasis. (17,571 years before the Christian æra.) The twelve Gods reigned during a period of 2000 years, and were succeeded by the Gods, or demi-Gods, of whom Osiris appears to have been the chief. *Men* was the first mortal who sat upon the throne of Egypt. The historian does not inform us at what epoch this monarch

reigned; but he tells us, that he was the first of 330 kings, of whom the last was Mœris; and among these are to be reckoned 18 Ethiopian princes, and a queen named Nitocris. Mœris was succeeded by Sesostris; and the historian reckons 10 kings between Sesostris and Sethos. After the death of Sethos 12 chiefs usurped the government, and reigned together, until Psammetichus, who was one of their number, deposed his colleagues, and reigned alone over Egypt. Herodotus reckons 5 kings after Psammetichus, including Psammetichus the second, who, after a reign of 6 months, was defeated and dethroned by Cambyses. Thus, without including the 11 colleagues of Psammetichus the first, we may reckon 347 kings, and one queen, to have reigned over Egypt between the time of Osiris and Horus and that of Cambyses; and calculating 33 years for each generation, we shall reckon, without including the short reign of Psammetichus the second, or taking his name into the account, a period of 11,451 years for the duration of the Egyptian monarchy under the Pharaohs.

Some inconsistencies seem to have escaped the father of history. He states, as we have just seen, that 18 Ethiopians reigned over Egypt between Men and Mœris; (L. 2. c. 100. et seq.) and yet he afterwards tells us, (L. 2. c. 142. et 143.) that 341 pontiffs, and as many kings, had succeeded each other, *from father to son*, between Men and Sethos. What then becomes of the 18 Ethiopian kings, and of queen Nitocris? Herodotus is defended by his admirers with more zeal than success for some of the idle tales which he has recorded; and surely we may reckon among these the fable of the regular succession, from father to son, of the kings and pontiffs of Egypt for 341 generations.

According to our historian, Mœris reigned nearly 900 years before the time when he himself visited Egypt, that is about 460 years before our æra. If we reckon the period when Sesostris succeeded to the throne at the death of Mœris, to have been about 1350 years before Christ, we shall probably not vary much from the date assigned to that event by Herodotus.

This historian reckons 18 reigns between

Mœris and Cambyses. We have just seen that he supposed nearly 900 years, let us say 890 years, to have elapsed from the reign of Mœris to the time, when he himself visited Egypt, about 65 years after the conquest of that country by Cambyses. The period, therefore, between Mœris and Cambyses may be reckoned at 825 years. Now out of the 18 kings who reigned between Mœris and Cambyses, there were 4, Necus, Psammis, Apries, and Psammetichus the second, whose united reigns amount, by the account of the historian, to only 48 years and 6 months. It follows that we must assign, at an average, rather more than 55 years to each of the 14 remaining reigns. But that out of 18 reigns there should be 14, each of which, taken at an average, should be 55 years in duration, is devoid of all probability. The impartial reader, who has no system to support, will now judge, whether much reliance can be placed on the testimony of Herodotus with respect to Egyptian chronology.

The same author informs us, that the isle of Elbo, whither Anysis had fled for refuge, had

not been discovered by his successors for 700 years after his time, nor until Amyrtæus likewise found an asylum in the same place. Now between Anysis and Cambyses Herodotus reckons 7 reigns; and from the date of the conquest of Egypt by Cambyses to the flight of Amyrtæus, there might have elapsed about 62 years. Of the 7 reigns, those of Necus, Psammis, Apries, and Psammetichus the second, amounted together to only 48 years and 6 months. There consequently remains for the 3 reigns of Psammetichus the first, of Sethos, and of Amasis, a period of 590½ years! Some writers have proposed to read τριακόσια for ἑπτακόσια. But this supposed correction does not entirely cure the evil. We have 62 years from the conquest of Egypt by Cambyses to the retreat of Amyrtæus. Herodotus reckons 6 of the 7 reigns between Anysis and Cambyses at 146 years and six months. Out of the 300 years we have thus only 208½ accounted for; and there would remain 91½ years for the reign of Sethos, the duration of which is not mentioned by Herodotus. If then we admit τριακόσια as the reading, we must suppose, without the

slightest authority, that Sethos reigned during the long period of 91½ years. No prudent critic, I should think, would propose to correct a chronological error by supposing a king to have reigned for more than 90 years. Herodotus, through haste or negligence, has committed a blunder; and there, I believe, we must leave the matter.

It is in vain to argue in defence of the historian, that the errors of which I have been speaking, are to be imputed to the copyists. In some examples this argument may be well founded; but it can scarcely apply to all the objections which have been urged against the accuracy of Herodotus. Much credit is no doubt due to those modern chronologers, who have laboured to fill up the chasms which he has left, to reconcile his apparent contradictions, and to correct his text. Unfortunately, however, no two of these chronologers are agreed about the emendations to be made; and we have to lament that after having been embarrassed by the errors of the author, and not much instructed, though perhaps amused, by the idle tales which he tells, we are still more perplexed

by the disputes of the critics who endeavour to set him to rights, and who propose to correct his mistakes by the help of their own conjectures. Whether under these circumstances the testimony of Herodotus can serve as the basis, on which a system of Egyptian chronology can be founded, I shall leave to the decision of the reader.

II. Diodorus Siculus (L. 1. S. 13.) informs us, that the Egyptians believed mortals, who had been distinguished by their virtues and talents, to have been raised to the rank of Gods; and that of these some had reigned over Egypt. The historian enumerates them in the following order—Helios, or the Sun, Saturn, Rhea, Jupiter Ammon, Juno, Vulcan, Vesta, and Mercury. The Sun was generally supposed to have reigned before the rest; but some of the priests held that he was preceded by Vulcan. The God Saturn, who reigned after Helios, espoused his sister Rhea, who bore to him Osiris, Isis, Typhon, Apollo, and Venus.

With these fables we must satisfy ourselves as well as we can. But chronological difficulties

soon crowd around us. The historian tells us, (S. 23.) that 10,000 years, according to some, and little less than 23,000 years, according to others, had elapsed between the reign of Osiris and the time of Alexander the Great. Again, according to some, (S. 26.) 23,000 years had elapsed between the reign of the Sun, and Alexander's passage into Asia. The ancient Gods reigned during 1200 years, it is said, and the younger Gods during 300 years. The reign of Helios preceded that of Saturn; and Osiris was the son of Saturn, and one of the younger Gods. Helios must therefore have reigned many ages before Osiris; and consequently it was a gross contradiction to put nearly the same interval between Osiris and Alexander, as between Helios and Alexander. If the priests could read and understand the archives which they pretended to possess, it is strange that they should have been guilty of such manifest inconsistencies. Neither is Diodorus quite excusable for repeating these inconsistencies without censure or animadversion. But it may be said in his defence, that he manifests his contempt for

the traditions of the priests, concerning the early history of Egypt, by generally prefacing their reports by the word μυθολογοῦσι.

Diodorus says (S. 44.) that the Gods and heroes, (or demi-Gods,) reigned little less than 18,000 years, and men about 15,000 years, down to his own time. But the elder and junior Gods had reigned in all only 1500 years. (S. 26.) How are these statements to be reconciled? I am aware, that some writers have understood Diodorus to mean, that each of the elder Gods reigned for 1200 years, and each of the younger Gods for 300 years. But the elder and younger Gods were 13 in number, and consequently the sum of years ought to be 19,500. I cannot, however, admit this explanation of the meaning of the author. Where does it appear that the Egyptians reckoned Rhea, or Juno, or Vesta, or Venus, among their sovereigns?

Diodorus relates (S. 44.) that the Egyptians had 470 native kings, and 5 queens. *The priests*, continues he, *have descriptions* (ἀναγραφὰς) *of them all in the sacred books, transmitted in succession from ancient times; and in these descriptions are stated what was the stature, what was the disposi-*

tion, and what were the actions performed by each king in his own time. Now if the priests, who gave this account of 470 native kings to Diodorus, could read the sacred books, it is clear that these books could not have been understood by the priests who informed Herodotus, about 400 years before, that there were only 330 native monarchs of Egypt before Sesostris, (for Men and Mœris were included in the number,) and that 17 kings reigned between that great prince and Cambyses. Which of the two historians was misinformed; or did the priests lie to both?

According to Diodorus, Menas was the first king of Egypt, who reigned after the Gods. (S. 45.) In this instance therefore he agrees with Herodotus; but this last historian reckons Mœris as the 330th sovereign, and Diodorus makes him the 89th, or as some understand him, the 88th.

Diodorus says that after Menas 52 kings reigned during a period of 1400 years. He consequently assigns only about 27 years at an average to each reign. This statement, extending to 52 reigns, falls short of the regular calculation of generations by more than 300 years.

It is singular, that after having assigned a period of 1400 years to the reigns of the 52 successors of Menas, Diodorus should be silent with respect to the duration of any reign, until the time of Chemmis, or Chembes, and of his successor Kephres. The historian then again relapses into silence, until he come to Apries and Amasis. Thus there are only 4 kings of whose reigns we can learn the exact duration from Diodorus.

But the numerous chasms, which occur in the chronological reports of this writer, are still more perplexing to the enquirer. We are told, for example, that there were 12 generations between Ouchoreus and Mœris; but we are left to guess the names of the kings, and the length of their reigns. We are yet more embarrassed how to fill up the space, when the historian informs us, that after the son of Sesostris, there were many (συχνοὶ) who governed the country, but who performed nothing worthy of being recorded. A yet greater degree of obscurity prevails with regard to the events which took place after the death of Bocchoris. The king,

who reigned after this monarch, was Sabaco, an Ethiopian; but it was not until after a long period (πολλοῖς δ' ὕστερον χρόνοις) after the demise of Bocchoris, that the Ethiopian stranger mounted the throne of Egypt. What duration can the chronologer venture to assign to this period? (L. 1. S. 65.)

There is a passage in Diodorus, of which it is necessary to take particular notice. *The Egyptians affirm*, says he, *that the invention of letters, of astronomy, of geometry, and of many of the arts, is due to themselves, as well as the institution of the best laws.* The historian then proceeds—καὶ τούτων μεγίστην ἀπόδειξίν φασιν εἶναι τὸ τῆς Αἰγύπτου πλείω τῶν ἑπτακοσίων καὶ τετρακισχιλίων ἐτῶν βασιλεῦσαι τοὺς πλείους ἐγγενεῖς, καὶ τὴν χώραν εὐδαιμονεστάτην ὕπαρξαι τῆς ἁπάσης οἰκουμένης—*and they say that the greatest proof of these things is, that Egypt was governed for more than 4,700 years by kings, who were for the most part indigenous, and that it was the happiest region of the whole habitable world.* (L. 1. S. 69.)

This passage is said by some to have been corrupted by the copyists. Perizonius proposes

to read, τὸ τῆς Αἰγύπτου πλείους τῶν ἑβδομήκοντα καὶ τετρακοσίων βασιλεῦσαι, καὶ τούτους ἐγγενεῖς—*gubernasse Ægyptum plus quam 470 reges, eosque indigenas.* He then adds, *sic certe cum altero Diodori loco pag. 29. A. hic ipse sic satis congrueret. Sed tamen, quum tam incerta sit et dissona Ægyptiorum chronologia, mutare nihil absque manuscriptorum ope ausim.*

The emendation is certainly a bold one, and Perizonius showed his prudence in avowing that he did not dare to retain it, or to make such a change, without the aid or authority of the manuscripts. In fact the reading proposed would not save Diodorus from the charge of having contradicted himself; and Perizonius might have seen that he was wrong in fancying that his reading would reconcile the historian with himself. In order to have effected this favourable change, he should have written, τὸ τῆς Αἰγύπτου ἄνδρας τῶν ἑβδομήκοντα καὶ τετρακοσίων βασιλεῦσαι, γυναῖκας δὲ πέντε, καὶ ἅπαντας ἐγγενεῖς —*gubernasse Ægyptum 470 homines, et 5 fœminas, et omnes indigenas.* This reading would reconcile this passage with that to which I have al-

ready referred, where Diodorus distinctly says that Egypt was governed by 470 native kings, and by 5 queens. If we retain the word πλείους, we shall have more than 470 kings.

But, after all, what chronologer could accept such a total alteration of the text, and venture to reason upon it? We have seen Diodorus contradicting himself before, and stating that nearly the same period had elapsed between the reign of Osiris and the time of Alexander, as had elapsed between the reign of Helios and that of the Macedonian monarch, when it is clear from his own account, that the reign of Helios must have preceded the reign of Osiris by many ages.

I doubt, however, whether we ought to lay all the blame on the historian. He appears to have repeated what he was told by the priests. Some of these said, that Vulcan was the most ancient sovereign of their country; and others, that it was Helios, or the Sun. Some maintained that nearly 23,000 years had elapsed between the reign of Osiris, and the arrival of Alexander in Egypt; others, that this period extended to

no more than 10,000 years. Some held, that the number of years between Helios and Alexander, stated at 23,000, was nearly the same as between Osiris and the Macedonian hero. Others thought that the Gods governed Egypt during 18,000 years, and mortal princes 15,000 years, down to the 180th Olympiad, when Diodorus was in Egypt. Again, there were some who reckoned the Gods, both elder and younger, to have reigned in all only 1500 years. Finally, there were some who calculated the duration of the monarchy, under native and foreign sovereigns, at 4,700 years. Now all these contradictory statements clearly originated with the priests, and not with the historian. At the same time, it must be confessed that he has admitted them without animadversion; and they consequently tend to render all the rest of his evidence extremely suspicious. Neither can we acquit Diodorus of great negligence, in leaving so many chasms to be filled up in his report of the successions of the Egyptian kings.

This historian then, as it appears to me, can afford us little aid, in forming any connected

account, or regular system, of Egyptian chronology. He agrees only in a few examples with Herodotus, whom he too rashly accuses, with some other writers, of spontaneously preferring paradoxes to truth, and of continually forging fables that lead astray the imagination. Herodotus was often too credulous, and frequently made statements which were inconsistent with each other; but from the general fairness and candour with which he speaks, there seems to be no reason to suspect his good faith, because in some instances he admits reports which are not only inconsistent with each other, but which are utterly improbable in themselves. Want of judgment, or want of memory, is not want of honesty. But is Diodorus himself quite exempt from blame? Are his own reports either always probable, or always consistent? He tells us that he consulted the priests. Herodotus did the same thing. The result is, that we cannot believe one half of what either of these celebrated writers has said of the ancient history of Egypt. It would however be very unjust to accuse them on this account of

dishonesty. Their errors are more truly to be attributed to their ignorance of the Egyptian language; to their negligence in not sufficiently examining the reports which were made to them; and to their misplaced confidence in the knowledge and good faith of the priests.

III. *A certain ancient chronicle*, says Syncellus, *exists among the Egyptians, by which I think Manetho was misled. It comprehends, in the immense period of* 36,525 *years,* 30 *dynasties, and* 113 *generations, first of the Auritæ, secondly of the Mestræi, and thirdly of the Egyptians. Of these the following account is given. There is no time assigned to Vulcan, because he shines both by day and by night. Helios, the son of Vulcan, reigned during* 30,000 *years. Next Saturn and the rest of the* 12 *Gods reigned during* 3,984 *years. Then the* 8 *demi-Gods were kings during* 217 *years. After them* 15 *generations of the cynic cycle are recorded for* 443 *years.* Syncellus then gives tables of the remaining dynasties.

The 16th dynasty of Tanites, consisting of 8 generations, reigned during 190 years.

The 17th of Memphites, 4 generations 103

The 18th of Memphites, consisting of	14 generations,	
reigned during		384 years.
The 19th of Diospolites,	5 generations	194
The 20th of Diospolites,	8	228
The 21st of Tanites,	6	121
The 22nd of Tanites,	3	48
The 23rd of Diospolites,	2	19
The 24th of Saites,	3	44
The 25th of Ethiopians,	3	44
The 26th of Memphites,	7	177
The 27th of Persians,	5	124
The 28th		
The 29th		39
The 30th of Tanites,	1	18

Syncellus then proceeds to observe, that the whole period of 36,525 years, being divided by 25, gives 1,461 years; and that it manifests the fabulous *apocatastasis* of the zodiac of the Greeks and Egyptians; *that is, the sign returns to its former position, when the first degree answers to the first part of the equinoctial animal called by them the ram: as is stated in the Genica of Hermes, and the Cyrannic books:*—(τοῦτ' ἔστιν, τὸ ἀπὸ τοῦ αὐτοῦ σημείου ἐπὶ τὸ αὐτὸ σημεῖον, ὅ ἐστι πρῶτον λεπτὸν τῆς πρώτης μοίρας τοῦ ἰσημερινοῦ ζωδίου κριοῦ

λεγομένου παρὰ αὐτοῖς, ὥσπερ καὶ ἐν τοῖς Γενικοῖς τοῦ Ἑρμοῦ, καὶ ἐν ταῖς Κυραννίσι βίβλοις εἴρηται.)

Such are the contents of the old chronicle, as reported by Syncellus. The author is supposed to have lived about the time of Alexander, or perhaps later. He was probably, therefore, not unacquainted with the works of Berosus. Now as the Babylonian writer changed astronomical into historical periods, (as I have shown in my first volume,) the author of the old chronicle seems to have endeavoured to do the same thing. It was an easy method of carrying back the annals of his country to a period even more remote than that imagined by the Chaldean historian. The *Auritæ* were the first who reigned over Egypt. May we not suspect the author of the old chronicle to have had in view the first kings who, according to Berosus, reigned in Babylonia before the deluge—אל־אור *El-Aur*, *Deus lucis*—אלף־אור, *Aleph-Aur*, *Dux lucis?* No time, says the author, can be assigned to Vulcan (the Pthah of the Egyptians). He shines by day and by night. But the next of the *Auritæ* was the Sun, who reigned for 30,000

years. The whole period, which he has described of 36,525 years, is so evidently a figment made to correspond with the imaginary cycle of the same duration, that there can be no question about the matter. Syncellus, if we can judge from the obscurity of his language in the last sentence which I have quoted from him, seems not to have quite understood the doctrine of the precession of the equinoxes; but his statement does not the less clearly prove, that the author of the old chronicle had converted an astronomical into an historical period. It is, however, but doing justice to the ancient Egyptians to say, that they made their calculation of the period of 36,525 years, without any reference to the complete revolution of the zodiacal signs. They imagined this cycle, because they thought, that in multiplying the Sothic cycle by the cycle of 25 years, they obtained an epoch, when the Sun and Moon came to exactly the same places, as they had been in at the beginning of the period. It was Hipparchus and Ptolemy who reckoned a complete sideral revolution to take place in 36,000 tropical years, equal to

36,525 cynic years. This error belongs to the Greeks, and not to the Egyptians.

What the author of the chronicle could mean by his 15 generations of the cynic cycle, that reigned for 443 years, I am at a loss to conjecture. The cynic cycle was the Sothic cycle, of which I have treated very fully in my essay on the zodiacs of Esneh and Denderah. Did he mean to say, that 15 generations had governed Egypt successively during a period of 443 years, each of which years was reckoned from the heliacal rising of Sirius? Or did he pretend that mortals began to reign after the Gods, at the commencement of a cynic cycle, and that the first 15 generations of mortals reigned during the first 443 years from the beginning of a Sothic period?

According to the author, the imaginary historical period of 36,525 years commenced with the reign of the Sun, and extended down to the time when Nectanebo was defeated by Darius, about 15 years before Alexander (about 350 years before our æra). He leaves a vacant space for the 29th dynasty, to which, in order to

obtain the whole period, we must assign a duration of 184 years. This intercalation is evidently necessary, since he assigns 30,000 years to the reign of the Sun—3,984 to the 12 Gods—217 to the 8 Gods—443 to the 15 generations of the cynic cycle—and 1,697 to the 14 dynasties of which he has mentioned the duration. It follows from this calculation, that the first of the 30 dynasties commenced 2,324 years before Nectanebo's defeat (2,674 years before our æra.) Now the defeat of Nectanebo answered to the 972nd year of the cynic cycle in which it happened; and the commencement of the 15 generations of the cynic cycle answered to the year 1,220 of an anterior cynic cycle. We have therefore yet to learn, why the generations of the cynic cycle were thus denominated.

The account, which this author gives of the chronology of Egypt, is so totally different from that which we find in Herodotus and Diodorus Siculus, that we might easily suppose him not to have been speaking of the same country with those two historians. But what faith can be placed in a chronologer, according to whose system the duration of a monarchy is made to square with

the sum of years produced by multiplying one astronomical period into another?

IV. In the epistle which Manetho addressed to Ptolemy Philadelphus, he styles himself, ἀρχιερεὺς καὶ γραμματεὺς τῶν κατ' Αἴγυπτον ἱερῶν ἀδύτων, γένει Σεβεννύτης, ὑπάρχων Ἡλιουπολίτης—*High-Priest and Notary of the sacred sanctuaries in Egypt, by origin a Sebennyte, Præfect of Heliopolis.* He was consequently a person of high rank. He was employed by the king to collect and translate Egyptian records, and appears to have been long engaged in composing his work, which he dedicated to his master. His information, he says, was gathered from the books of Hermes, and from inscriptions on *stelæ* found in the Seriadic land. This was the same land, which Josephus calls Siriad, and in which he says two *stelæ* were placed by the descendants of Seth to record their inventions. This land was probably that part of Ethiopia in which the Nile was called *Siris*, or *Seiris*. It may appear doubtful, however, whether the discoveries of Manetho were considered as satisfactory at Alexandria. If Ptolemy Philadelphus had

placed entire confidence in Manetho, would he not have left the interpretation of the monuments to his care alone, and to those whom this High Priest employed? But it is clear that the king engaged others to make similar researches. Thus the *hierogrammateus* Melampus informs Ptolemy, that he had written out, according to his order, the interpretation of the signs and symbols, which he had taken from the *adyta* and *stelæ* (ἐξ ἀδύτων καὶ στηλῶν). I shall soon have occasion to speak of Eratosthenes, who was employed in composing a new Egyptian chronicle by Ptolemy Euergetes. Would this have happened, if much credit had been attached to the book produced by Manetho?

Manetho pretends, that he consulted the books of Hermes. These were probably the same books which Clemens Alexandrinus has described. (Strom. L. 6.) Now these books are, I believe, generally admitted to be forgeries. Galen, in a passage which has been often cited, speaks of one of the books which were attributed to Hermes in terms of unqualified contempt. This book, it seems, treated of botany; and

Galen held its contents to be forgeries, because, says he, they are manifestly trifles and figments invented by the compiler. All the books of the Egyptians were probably destroyed during the persecution which followed the conquest of their country by the Persians. This severe persecution was peculiarly directed against the religion and literature of Egypt. According to Herodotus it lasted for 39 years, and according to the sacred writers for 40 years. It was renewed again by the Persians at different intervals. I can therefore by no means agree with some modern writers, who think that the Egyptians possessed the same learning and knowledge, in whatever degree these might have existed, under the Ptolemys as under the Pharaohs. Ptolemy Euergetes is said to have brought back to Egypt no less than 2,500 images, which had been taken away by Cambyses. From this circumstance alone we may judge of the minute vigilance of Persian tyranny, instigated by national animosity and by religious zeal. How then can it be supposed that the priests preserved their books, of which from the institutions

of the country the numbers could not have been great? There is more probability, that when about 40 years after the conquest of their country, they obtained some respite from the persecution which had driven them from the sacred colleges, they endeavoured to replace what had been destroyed, and composed histories and chronicles, partly by the aid of traditional reports, partly by the help of some kuriologic and phonetic hieroglyphs, and partly by the figments of their own imaginations. We may observe, that with the exception of the Hermetic books, of which Manetho speaks, his attention, as well as that of Melampus, was directed to hieroglyphs inscribed on *stelæ*. I shall presently show that Eratosthenes probably derived his information from the same sources.

But now comes the question, whether the priests ever recovered the thorough knowledge of the symbolic hieroglyphs, after they were again re-assembled in their colleges? Their ancient books were gone; and they had only public monuments to consult, and the *stelæ*, some of which might have been preserved from

destruction in the *adyta* of the temples. From these, however, they were only likely to acquire the knowledge of insulated facts. No full and continuous narrative could be carried on by the help of kuriologic hieroglyphs engraved on columns. The ancient books must have been written either in hieratic, or in epistolary characters, but probably in the former. Now that these ancient books did not exist 60 years after the Persian conquest (or that if they did they were no longer understood), appears from the fact, that the Egyptian priests gave accounts of the history and chronology of their country which were totally at variance with each other.

It is indeed remarkable, that the Ptolemys, instead of applying to native Egyptians for information concerning the antiquities of the country, addressed themselves to Greeks, or to the descendants of Greeks. It can scarcely be supposed, that Philadelphus and Euergetes were so ignorant of the language, as not to be able to converse with the natives of Egypt. Why then were the native Egyptian priests and scribes not consulted, unless it were believed, that the little

antiquarian knowledge which remained, was to be found among Greeks whose families had been settled at different periods in the country, but principally during the reign of Psammetichus? The records, which the priests read to Herodotus, were probably in existence in the time of Manetho. Why were they not consulted by this writer? Why does he never refer to them? The only answer to be given to these questions is, that he considered the records, of which Herodotus speaks, to have been mere figments and forgeries of the priests. He mentions Herodotus only once, and then it is to contradict him. His system of Egyptian chronology, as we shall presently see, is at total variance with that of the Halicarnassian historian.

We learn from Eusebius, (see the Armenian version,) that Manetho's history was contained in 3 books, and that it extended from the commencement of the Egyptian monarchy to the time of Darius. The first God was Vulcan; after him was Sol, then followed Agathodæmon, Saturn, Osiris, Typhon, and Orus. These

were the first rulers of Egypt. The royal authority afterwards passed in continued succession during 13,900 years to Bydis. But Eusebius understands these years to be months of 30 days, and he adds, that the period which we call a month was formerly called a year by the Egyptians. The Heroes succeeded the Gods, and reigned 1,255 years. Other kings governed during 1,817 years. Afterwards 30 Memphite kings reigned 1,790 years; and 10 Thinnite kings 350 years. The reign of the Manes and Heroes followed during 5,813 years. The whole sum amounts, says Eusebius, to 10,000,000 of years; but the real time to be calculated amounts to 24,900 lunar months, equal 2,206 years. This calculation does not come out very clearly; and in endeavouring to reconcile the chronology of the Egyptians with that of the Hebrews, the Bishop of Cæsarea did not sufficiently attend to his arithmetic.

The statement of Manetho, according to Syncellus, differs very materially from the account given by Eusebius. The following is the report of Syncellus:—*Manetho, the Sebennyte, who lived after Berosus, and who was High Priest of the im-*

pure sacred rites (τῶν μιαρῶν ἱερῶν) in Egypt, in the time of Ptolemy Philadelphus, wrote to that Prince, telling him falsehoods, in the manner of Berosus, concerning 16 *dynasties, and also the* 7 *Gods that never existed. These Gods lasted, says he, for* 1,985 *years; the first of whom, the God Vulcan, reigned for* 9,000 *years.*

If however the 7 Gods reigned only for 1,985 years, Vulcan, the first of the 7, could not have reigned for 9,000 years. I would therefore read πρόγονος, or προπάτωρ, for πρῶτος. Vulcan's reign of 9,000 years preceded the reigns of the other Gods, which lasted for 1,985 years.

Syncellus then proceeds to speak of the reduction of these years to months; and though he treats this plan with utter scorn, he yet most inconsistently adopts it in the following table.

GODS.

1. Vulcan	reigned	724½ years,	4 days.
2. Helios		86	
3. Agathodæmon		56	10
4. Saturn		40½	
5. Osiris and Isis		35	
6.			
7. Typhon		29	

DEMI-GODS.

8. Horus	reigned 25 years.
9. Mars	23
10. Anubis	17
11. Hercules.	15
12. Apollo	25
13. Ammon	30
14. Tithoes	27
15. Sosus	32
16. Jupiter	20

According to this table, therefore, the Gods and demi-Gods reigned during a period of 1,185 years and 14 days. But this statement, as appears from his own evidence, is not the same which Syncellus found in Manetho. According to this author we should reckon 10,985 years for the reigns of Vulcan and his 7 successors. It is likewise clear, that Horus should have been numbered among the Gods; and that the list should have been given as follows: Vulcan, Helios, Agathodæmon, Saturn, Osiris, Isis, Typhon, Horus. We ought consequently to reckon Mars as the first of the demi-Gods. But in considering the list of the demi-Gods, which

we may believe to have been faithfully copied from Manetho, we can scarcely avoid noticing some circumstances which may make us suspect *the High Priest of the impure worship* of having forged a catalogue of names, some of which, at least, were never ascribed to the demi-Gods by the Egyptian mythologists.

The Egyptians had no deity that answered to Mars. The planet Mars was called by them the star of Hercules, as is affirmed, though erroneously, by Achilles Tatius. Julius Firmicus tells us that it was also named πυρόεις. In later times the same planet received the appellation of *Artes*, and *Ertosi*, as appears from Vettius Valens and Cedrenus. (See Jablonski L. 3. c. 6.) These names, however, which the Egyptians endeavoured to explain as words belonging to their own language, were probably not introduced until after the conquest of Egypt by the Persians, and are apparently corruptions of the Persian *Atser*. But the explanations given by Valens and Cedrenus make no reference to Mars. The Egyptians had neither God, nor demi-God, similar to the Ares of the Greeks, or to the Mars

of the Latins. The 6th demi-God is called *Tithoës* in Manetho's catalogue. This demi-deity was then of the family of the Titans; and Tithoës is perhaps the proper orthography of the name written *Typhoeus*, *Typhoës*, *&c.* But Titan and Tithoës, sons of the Earth, were originally introduced from the Phœnician into the Greek mythology, and were named from טית, *tit*, or *tith*, the clay from which they sprang. Tithoës is a name unknown in Egyptian mythology. *Sosus*, his successor, is equally a stranger in the Pantheon of the Egyptians. Jupiter is set down as the last of the demi-Gods. Had the Egyptians any deity, distinct from Osiris and Amon, to whom the name of Jupiter was applied? Certainly Jupiter ought not to have been classed among the demi-Gods. Thus upon our first introduction to Manetho, we find ourselves unable to trust either to what is told us by his editors, or to what is said by himself.

Julius Africanus and Eusebius have each given a list of the 30 dynasties which succeeded the demi-Gods; and each pretends that he has copied his account from Manetho. It is not my

intention to transcribe these lists at full length; or to extend through a waste of barren pages two long and uninteresting catalogues of barbarous names. It is sufficient for my purpose, to state the number of years assigned to the whole 30 dynasties—to mention the whole number of reigns set down—to offer a few remarks on the events said to have happened during those reigns —to point out certain discrepancies which exist between the reports of the editors—and finally, to compare the lists of kings for the 18th dynasty, as stated by Africanus and Eusebius, with the list furnished for the same dynasty by Josephus; the three lists being all ascribed to Manetho by these three writers.

The duration of the 30 dynasties was reckoned by Manetho at 4,950 years, 6 months, and 70 days, according to Africanus—at 4,818 years, and 75 days, according to Eusebius. Manetho, according to Africanus, has named 452 sovereigns from Menes to Darius—according to Eusebius, he has named only 334. To which of the two Manethos are we to trust?—to the Manetho of Africanus, or to the Manetho of Eusebius?

Manetho, it may be observed in passing, is somewhat garrulous for a chronographer. He tells us that during the reign of the 7th king of the 2nd dynasty, the Nile flowed with honey for eleven days; and that in the time of king Bocchoris, a lamb was heard to speak. Two grave theologians, Julius Africanus and Eusebius, have not disdained to record these idle tales.

Manetho says that Thuoris, the 5th king of the 19th dynasty, was the same whom Homer calls Polybus. This information is curious, if it be true.

The two first kings of the 2nd dynasty are called Boethus and Kaiachus by the Manetho of Africanus—Bochus and Choos by the Manetho of Eusebius. These names remind us of the Kai-Chus of the Persians, of the Bacchus of the Latins, and of the Cush of the Hebrews.

The Manetho of Africanus forgets the names of 4 kings of the 2nd dynasty, which the Manetho of Eusebius remembers; and the latter omits one name which is recorded by the former.

Phiops, according to the Manetho of Eusebius, was an Elephantinite king of the 5th dynasty, who reigned 94 years. Phiops, accord-

ing to the Manetho of Africanus, reigned 100 years; but he was a Memphite king, and belonged to the 6th dynasty.

Now for this 6th dynasty the Manetho of Africanus reckons 5 kings, and 1 queen, who was called Nitocris; while the Manetho of Eusebius limits the duration of the same dynasty to 3 years and to the reign of Queen Nitocris. Is it not singular that the Greeks should have heard of one Queen Nitocris at Babylon, who built a bridge, if we believe Diodorus, over the Euphrates, which was 5 stadia in length; and of another Queen Nitocris at Memphis, who built the third pyramid? We must either suppose Nitocris to have been a name common to the Chaldeans and to the Egyptians; or accuse the Greeks of having mistaken the name of one of these queens.

The Manetho of Africanus reckons 70 kings for the 7th dynasty; but he limits the duration of this dynasty to 70 days. The Manetho of Eusebius reckons 5 kings, who reigned for 75 days. The latter is the less improbable of the two improbable accounts.

The Manetho of Africanus states the duration

of the 9th dynasty at 409 years. The Manetho of Eusebius at 100 years.

Both the Manethos are agreed, that there were 19 kings comprised in the 10th dynasty, the duration of which they fix at 185 years. Thus 19 kings, who followed each other in succession, reigned, each at an average, not quite 10 years; and the two Manethos agree once in stating an utter improbability; unless indeed we suppose wars and revolutions, of which we hear nothing, to have taken place in Egypt.

The two Manethos agree once more; and indeed here we may consider them as one and the same. Manetho, then, reckons for the 11th dynasty 16 kings, who reigned during 43 years. Thus a reign of not quite 2 years and 9 months is assigned at an average to 16 monarchs following each other in succession. Nor will it help the matter to suppose these 16 kings to have reigned together. Nothing is more improbable than that 16 persons should continue to reign together during a period of 43 years, without division from revolution, from infirmity, or from death.

But it is clear that Manetho did not mean

that these 16 kings had reigned together; for according to the edition of Africanus, he reckons 60 kings in the 13th dynasty, who reigned only 184 years, which would give at an average about 3 years and 24 days for each separate reign. According to the regular calculation by generations, which we may always admit in countries undisturbed by wars and revolutions, we ought to assign 1,980 years for a dynasty of 60 kings. What then are we to think of Manetho as a chronologer, who for 60 kings, reigning in succession, reckons only 184 years?

The 16th dynasty was composed, according to the Manetho of Eusebius, of 5 Theban kings, who reigned during 190 years. According to the Manetho of Africanus, this dynasty consisted of Greek shepherds, the number of kings amounted to 32, and they reigned during 518 years.

Africanus makes his Manetho reckon 43 shepherd-kings, and 43 Thebans in the 17th dynasty, which lasted only for 153 years. Eusebius makes his Manetho say that this same dynasty consisted of only 4 shepherd-kings,

whom he brings from Phœnice. The Manetho of Africanus had stated that the 15th dynasty was composed of 6 shepherd-kings, who were Phœnicians.

We come now to the 18th dynasty; and here we meet with three Manethos, whom I shall name in the order of their seniority, the Manetho of Josephus, the Manetho of Africanus, and the Manetho of Eusebius. The reader will observe, that the discrepancies are not so considerable between the two last as we usually find them.

Manetho's statement of the 18th Egyptian dynasty according

to Josephus;	yrs.	mths.	to Africanus;	yrs.	to Eusebius.	yrs.
1 Tethmosis reigned	25	4	1 Amos reigned		1 Amosis reigned	25
2 Chebron	35		2 Chebros	13	2 Chebron	13
3 Amenophis	20	7	3 Amenophthis	21	3 Amenophis	21
4 Amesses, a woman	21	9	4 Amersis	22	4 Miphris	12
5 Mephres	12	9	5 Misaphris	13	5 Misphragmouthosis	26
6 Mephramathosis	21	10	6 Misphragmouthosis	26	6 Touthmosis	9
7 Thmosis	9	8	7 Touthmosis	9	7 Amenophis	31
8 Amenophis	30	10	8 Amenophis	31	8 Orus 36 or	38
9 Orus	36	5	9 Horus	37	9 Achencherses	12
10 Acencheres	12	1	10 Acherres	32	10 Athoris	39
11 Rathotis	9		11 Rhathos	6	11 Chencheres	16
12 Acencheres 2nd	12	5	12 Chebres	12	12 Cherres	15
13 Acencheres 3rd	12	3	13 Acherres	12	13 Armes	5
14 Armais	4	1	14 Armeses	5	14 Amesses	68
15 Ramesses	1	4	15 Ramesses	1	15 Menophis	40
16 Harmesses	66		16 Amenoph	19		
17 Amenophis	19	6				

In the list of Africanus, the number of years in the reign of Amos is not mentioned; but from the agreement of the other two lists, we may set it down as 25.

Thus Manetho reckons for this dynasty 17 kings, and 350 years and 10 months, according to Josephus—16 kings, and 283 years, according to Africanus—15 kings, and 358 years, according to Eusebius. The reader will easily detect other discrepancies in these three lists.

The Manetho of Africanus reckons 7 kings, and 209 years, for the 19th dynasty—the Manetho of Eusebius 5 kings, and 194 years. For the 20th dynasty the two Manethos reckon 12 kings; but the one assigns 135 years to the duration of this dynasty, and the other 178. In the edition of Africanus 20 kings are counted for the three succeeding dynasties, and the duration of their reigns is estimated at 339 years. In the edition of Eusebius the number of kings is set down at 13, and the years of their reigns amount to 223. We find the name of Bocchoris alone in the 24th dynasty. The Manetho of Africanus makes him reign 6 years; but the

Manetho of Eusebius increases the number of years to 44. Even at so late a period as the reigns of Nectanebo the first, of Teos, and of Nectanebo the 2nd, the three kings who composed the 30th dynasty, Manetho cannot be reconciled with himself. According to Africanus, he assigns 38 years, and according to Eusebius 20 years, for the duration of this dynasty, which had been in existence not 50 years before his own time.

I shall now leave the reader to decide, how far he can trust to the authority of Manetho, whose chronological tables, as they are variously reported by his editors, begin in confusion, and end in contradiction.

V. Eratosthenes, a man of great talents, who held the situation of second librarian at Alexandria in the time of Ptolemy Euergetes, was employed by that Prince in making chronological researches. Dionysius of Halicarnassus speaks favourably of him as a chronologer; but I doubt whether the praise be merited. Eratosthenes was a distinguished mathematician; and it was probably when he visited Diospolis, that he

undertook to determine the distance between that city and Alexandria, and to measure an arc on the meridian. It is little probable that he could give much time to the explanation of hieroglyphs and anaglyphs, while he was endeavouring to determine the obliquity of the ecliptic.

Syncellus (p. 91.) gives us the following information :—*Apollodorus, the chronographer, has described another kingdom of the Egyptians. He reckons the number of its kings at* 38 *; and the years of its duration at* 1,076. *This kingdom began in the year of the world* 2,900, *and terminated in the year of the world* 3,976. *Of which things, says he, Eratosthenes having received the knowledge from Egyptian monuments and names, thus periphrased them, according to a royal mandate, out of the Egyptian into the Greek language.*

TABLE OF THE KINGS OF THE THEBANS.

1. Mines, Thebinites, the Theban, reigned	62 years.
2. Athothes	59
3. Athothes	32

4. Diabies reigned	16 years.
5. Pemphos	18
6. Toigar-Amachos, Momcheiri	79
7. Stoichos	6
8. Gosormies	30
9. Mares	26
10. Anoyphes	20
11. Sirios	18
12. Chnoubos Gneuros	22
13. Ranosis	13
14. Biyris	10
15. Saophis	29
16. Sensaophis	27
17. Moscheris	31
18. Mousthis	33
19. Pammos Archondas	35
20. Apappous	100
21. Achescos Ocaras	1
22. Nitocris	6
23. Myrtæos	22
24. Thyosimares	12
25. Thinillus	8
26. Semphroucrates	18
27. Chouther	7
28. Meures	12
29. Chomœptha	11
30. Ancounios Ochy	60

31. Penteathyris	16
32. Stamemenes	23
33. Sistosichermes	55
34. Maris	43
35. Siphoas	5
36.	14
37. Phrouron, Nilus	5
38. Amounthantaios	63

To this list are added explanations of the names; and of these I shall have occasion to speak presently. In the mean time it is necessary to lay before the reader the following remarks of Syncellus, after having finished the list of Eratosthenes:—*The government of the* 38 *kings called Theban in Egypt* (*whose names were received by Eratosthenes from the sacred scribes of Diospolis,*[1] *and periphrased by him out of the Egyptian into the Greek tongue*), *ended here; having commenced in the year of the world* 2,900, 124 *years after the confusion of languages, and*

[1] It has been idly suggested by some that Syncellus may have meant Diospolis parva. But it was not to Diospolis parva that Eratosthenes would have gone to collect the names of the kings of the Thebais.

having terminated in the year of the world 3,976. *We think it superfluous to produce the names of the* 53 *following kings reported by Apollodorus himself, as, like those preceding them, they can be of no service to us.*

Now it is surely extraordinary, that this *laterculus,* as it has been called, of Eratosthenes should have remained unnoticed, until it was dug out of the compilations of Apollodorus the grammarian, who flourished about 100 years before Christ, by Syncellus who lived in the 8th century. If it had had any reputation for accuracy, why was it neglected by Diodorus Siculus, by Josephus, by Julius Africanus, and by Eusebius? Eratosthenes obtained his information from the sacred scribes of Diospolis. He explained the names of the kings; and translated the records on ancient monuments out of Egyptian into Greek. Considering the reputation of the writer in other respects, we might have expected to have heard more of his chronology of Egypt, if it had been much esteemed in his own time. As it is, we can only judge

of the value of this *laterculus* from the internal evidence.

1. Eratosthenes tells us that Mines is to be interpreted *Dionius*. His Mines is clearly the same with the Men of Herodotus, the Menas of Diodorus, and the Menes of Manetho, though according to this last writer Menes was a Thinnite and not a Theban monarch. Jablonski derives the name of Menes from ⲘⲈⲚⲈϩ, *meneh*, which he translates *æternus*. But *meneh* can be nothing else than the word ⲈⲚⲈϩ, *eneh*, αἰὼν, *sæculum*, prefixed by the nominal sign *m*. I question much whether this etymology can be admitted. Herodotus must have heard the name pronounced Men; and the terminations in *as*, and *es*, were apparently added by other writers, who as usual endeavoured to give a Greek form to a barbarous word.

Man, *Men*, *Min*, and *Mon* appear to have been very ancient appellations of the Sun. The Moon was equally known by similar names, if in fact we should not rather call them different pronunciations of the same word. The Heavens

and the stars were likewise called *Mina*, *Minu*, and *Meni*. The Tsabaists personified these objects of their adoration. They worshipped the Sun under the name of *Man*, *Mon*, or *Men*; sometimes as the personification of the strength of the generating principle; sometimes as making manifest the works of nature; and sometimes, with the Moon and the stars, as the measurer of time. Different nations, it may be easily supposed, endeavoured to accommodate the names of their deities to their own idioms. In ancient Egyptian I should conceive, that the Sun was called *Men*; and hence we have the name of the first king, who was probably the same with the *Helios* of the Greeks. What indeed is the account which the Greek chronologers have given us? In general they tell us, that the Sun was the first divine king, as Menes was the first mortal king, who reigned over Egypt. Now the God and the man were mere personifications of the Sun—the fabulous offspring of the Tsabean mythology, and not the real children of genuine history. The Sun descended (in those remote ages) to the lower

hemisphere in the sign of Scorpius—Osiris, the symbol of the Sun, was slain by Typhon, whose domicile was in the sign of Scorpius—Menes was killed by a crocodile, and a crocodile was the emblem of Typhon. Pliny says, that the stable of the sacred bull of Heliopolis was situated where had stood the palace of Menis. Some writers think that the name of this bull, which was pronounced *Mneuis* by the Greeks, was really the same with that of the king; and there can be no doubt that *Mneuis* was worshipped as a solar symbol. It is generally agreed that Herodotus was wrong in translating Mendes a goat. If my explanation of the word *men* be accurate, we may understand Mendes, who was the same with the Grecian Pan, and a symbol of the Sun, to have been, thus named from *men, sol,* and *tesh, tempus.* Provided, therefore, that *men* bear the signification which I have here given to it, I should prefer this etymology to that which I have already proposed in a former chapter. In no manner can I agree with Jablonski, who resolves this name into ϴΗΤΗΧ, or ΠϴΗΤΗΧ, which, in spite

of all his periphrases, can signify nothing else than *lolium*, or *zizanium*. *Men-ntesh*, according to my etymology, signifies *Sol manifestans tempus*. Let us observe other examples, where the words *man*, *men*, *min*, *mon*, denote the Sun, the Moon, and the starry heavens.

The Sun was anciently named *On* in Egyptian. This word, prefixed by the nominal sign *m*, became *Mon*. Now those who are acquainted with the Coptic language, and its cognate dialects, must be aware that the Egyptians frequently changed the *o* into *a*, and still more commonly into *e*—as in ⲔⲀⲨ, ⲔⲎⲨ, ⲔⲨⲨ, *nudus*—ⲔⲈⲖ, ⲔⲞⲖ, *plicare, involvere*—ⲔⲎⲦ, ⲔⲨⲦ, *ædificare*—ⲪⲀⲪⲦ, ⲪⲈⲪⲦ, ⲪⲨⲨⲪⲦ, *impedire*, &c. The word *mon*, therefore, which signified *sol*, might have been, and probably was often pronounced *man*, and *men*. As used by the Egyptians this name seems to have signified, (if the word be allowed me,) *Sol-manifestator*. Thus ⲞⲨⲰⲚ, *ouon*, in Coptic signifies *patefacere*, *manifestare*; and ⲞⲨⲰⲚⲒ, *ouoïni*, signifies *light*, as that which makes all things manifest

or visible. Consequently the Sun was called *Mouon*, or *Mon*, for the same reason.

In other languages we frequently find the word, variously sounded *Man*, *Men*, *Mon*, employed in the other senses which I have already affixed to it. The Phœnician deity אש־מון, *Esh-mon*, was said to be the same with Æsculapius, and I understand the name to signify *ignis Solis*; for Æsculapius, as well as Hercules, was originally an appellation of the Sun. We meet with the name of בעל־המון, *Baal ha-mon*, in the sacred scriptures; and I interpret this name *Baal*, ὁ Ἥλιος, *Dominus Sol*. It is said in Isaiah, *præparantes Gad mensam, et implentes Meni vinum mixtum*. (C. lxv. 11.) *Gad* means the celestial troop, the stars, which the astrologers considered as the dispensers of fortune; and by *Meni* are indicated the hosts of Heaven, of which the Sun was the leader, considered as the measurers of time, and as the regulators of the destinies of mortals. The Arabians and Syrians adored the idol of *Man* or *Men*, who was no other than *Sol mensor*. The reader will perceive the affinity of the name of this idol to

the Hebrew and Chaldaic root מנה, *manah*, *numeravit, pependit, mensus est.* If Menu, to whom the Hindus attribute their code of laws, and whose book was said to be a gift from heaven, was a fabulous personage, of which there may be some suspicion, I should be apt to think that the first Indian, like the first Egyptian, monarch, was no other than a personification of the Sun. Who was that Cretan Minos, the friend and counsellor of Jupiter, who at length retired to Orcus, where he administered justice among departed shades, but an imaginary symbol of *Sol inferus?* What are we to understand of that Minotaur, half man, half bull, unless the fabled monster were an emblem of the Sun in the sign of Taurus? The God *Manes*, whom the Latins invoked, according to Apuleius, when they were uncertain what lot would come up, was probably, in the origin, no other than the Sun. It may be true, as Servius alleges, that *manis*, in old Latin, was synonymous with *bonus;* but this was because *manis* was also synonymous with *humanus*, and we shall presently see the origin of this last word. It is equally in

vain to trace *mane* to *manis, quia optima sit diei pars.* The *Di Manes* were originally the Sun, and Moon, and Planets, considered both as *Di superi* and *Di inferi;* and were the same as the *Meni* of the Syrians, who measured out the destinies of men. That they should have been confounded with the *Lares* of the Latins may be easily understood, since they presided over the fortunes of individuals, as well as over the fate of empires. It is clear, however, that the name of the *Manes* was not derived from *manis, good.* According to Varro, *Mania* was the Goddess of the insane; and Macrobius tells us, that for the safety of families, the Oracle ordained that boys should be sacrificed to *Mania,* the mother of the *Lares. Mania* was therefore no benevolent deity; nor probably was the God *Manes,* mentioned by Apuleius. We likewise learn from Macrobius, that the Samothracian Gods, called *Hemina,* were the same with the Roman *Penates.* These *Hemina* of the Samothracians were probably also the same with the המני, *Ha-meni,* of the Syrians.

I can scarcely help thinking, that *Men* was

one of the names which the Greek mythologists gave to Jupiter, considered as the Sun. The *Salentini*, a people of Greek origin, dedicated and sacrificed a horse, as we are informed by Festus, *Menzanæ Jovi.* This is an obvious error, and we should read *Men-zani.* But *Men-zan* I understand to be equivalent to *Sol-Jupiter.* The superstition was probably derived from Persia. Again, if *Men* had not been equivalent to Jupiter, Menecrates, vain and foolish as he might have been, would scarcely have hailed himself ὁ Ζεὺς, in his letter to Philip; but he clearly thought his name to be equivalent to κράτος Διὸς, *robur Jovis.* Divine honours were paid to Menelaus and to Helen, οὐχ' ὡς ἥρωσιν, ἀλλ' ὡς θεοῖς, *not as to heroes, but as to Gods;* (Isocrat.) that is to say, not to them as mere mortals raised to the honours of the apotheosis, but as to deities properly so called. Now in this case the name of Menelaus was probably not supposed to be compounded, as modern etymologists tell us, of μένος and λαὸς, signifying *robur populi;* but rather of other words indicative of some object of Pagan adoration—such might be *men,*

Sol, combined with ἔλη, *calor solaris*; or *Men*, understood to be equivalent to Zeus, combined with Ἥλιος, *Helios*. I however offer these remarks as mere conjectures.

We can have no doubt with regard to the appellations given to the Moon. This luminary must have been worshipped at a very early period by the Tsabaists as a measurer of time. Hence the Μήνη of the Greeks, perhaps the *Min-erva* of the Latins, the *Mon*, or *Moon*, of the Goths, and the *Mona* of the Celts—possibly, we may add, the Persian ماںگ *mang*.

In the Pehlvi, and indeed in modern Persian, *mina* and *minu* signify *heaven*. The word مان, *man*, means *lord*; but I have little doubt that it originally signified the Sun. The ancient Persians, who worshipped this luminary, were also dualists; and they typified the good and evil Principles by *Sol superus*, and *Sol inferus*—by Ormuzd and Ahriman, as the Egyptians did by Osiris and Typhon. The name of Ormuzd is composed of هور, *Hor*, *Sol*, and مزد, *muzd*, *pretium*; but perhaps this last word originally signified *benevolence*. Hyde has given an etymo-

logy of the name of Ahriman that appears to me very unsatisfactory. *Hoc nomen conflatum est* اهار *Ahar, et* ريمن *Riman, quæ sunt synonyma quibus significatur spurcus, fœdus, pollutus.* This statement is not accurate: Riman signifies *love.* It is true that هاري *hari,* may be translated *spurcus;* and that by prefixing the emphatic *elif* we may fairly render *ahari, spurcus,* or *pollutus.* I read *Ahariman,* which was the old spelling; and I understand مان *man,* to signify *Dominus,* and *Ahariman* to be equivalent to *Dominus pollutus.* I contend that *man* in Pehlvi also signified the Sun; and that *Ahariman* indicated the winter Sun, shrouded in clouds, and obscured by storms. Hence the name of *Ahariman, the foul Sun.* One of the titles of the God of the Iranians was فرمان *Pherman,* which I translate *Sol splendidus.* Another was اقمن *Akman,* which I render *Dominus Sol.* Among the Genii attendant on Ormuzd, were بهمان *Bahman, pulchritudo Solis,* and دهمن *Deh-man, servus Solis.*

But the solar appellation, *Man,* seems in process of time to have become synonymous with *lord,* and to have at last been principally under-

stood in this sense. Every one knows that *Baal*, or *Bel*, and *Adon*, were appellations of the Sun. In the beginning, it may be supposed, *Man*, considered as equivalent to *Dominus*, was a title assumed only by a few. The same thing may be said of *Bel* and *Adon;* appellations which were long confined to kings and pontifs. When these titles were assumed, they were generally joined in composition with other words. Thus one person called himself בלאדן, *Beladan*, *Lord of justice*, (2 Kings xx. 12.)—another, בלגה, *Belgeh*, *Lord of health*, (1 Chron. xxiv. 14.)—another, בלעם, *Belaam*, *Lord of the people*, (Numb. xxii. 5.)—another, אדניבזק, *Adonibezek*, *Lord of splendor*, (Judg. i. 5.)—and another, אדניצדק, *Adonitsedek*, *the just Lord*, (Jos. x. 1.) The word *man*, which likewise signified *Dominus*, was probably assumed at first by great personages; but it was gradually taken by humbler individuals. The despotic masters of Syria and Chaldea could prevent the proud titles of Bel and Adon from becoming too common; but the independent tribes of Scythians could not be thus restrained. Whole tribes and

nations assumed the appellation which was anciently given by the heliolators only to their God. In the woods of Germany, and perhaps farther to the north and the west, the rude inhabitants adored a deity named *Mannus* by Tacitus. This deity was probably the Sun, called *Man* by the barbarians. But the ancient nations of the north soon forgot the original sense of this word *Man*, and even its signification of *dominus*, which it still retains in the language of Iran. Each individual assumed the name; and whole nations, all of Persian or Scythian origin, from Mount Caucasus to the shores of the Baltic and to the sources of the Danube, were known by the names of Germans, Alemans, Normans, and Turcomans. But an appellation or title which was taken by the high and the low—by all alike—became at length the word which designated the whole species. Thus I can have little doubt, that *man*, equivalent to *homo* in the Teutonic languages, came originally from *man*, equivalent to *dominus*; and that *man* in yet remoter ages had been an ap-

pellation given to the Sun by half the nations of the peopled globe.

Now to return to the *Men*, *Menes*, or *Mines*, of the Greek historians and chronographers, I conceive it to have been a solar title applied by the Egyptian mythologists to Mitsrim. That this patriarch established his family in Egypt, which always bore his name among the Hebrews, can scarcely be questioned. I shall not decide what faith is due to the Alexandrian chronicle, but it is there stated that idolatry already prevailed in Egypt in the time of Mitsrim. The Arabian writers say that the ancient *Mesr*, that is Memphis, was founded by Mitsrim. Pliny, (L. 36. 8.) after speaking of the obelisks erected in honour of the Sun, adds; *primus omnium id instituit, Mesphres, (alias Messeres, alias Mitres,) qui urbe Solis primus regnabat. Mesphre* in Egyptian signifies *Sole genitus. Mesre* bears the same meaning. But the first monarch who erected an obelisk, and who first reigned in the city of the Sun, that is, in the city of On, must have been one of the most ancient kings

of Egypt. May we not suspect that the Egyptian mythologists changed the name of Mitsrim into Mesphre, or Mesre? May not the same mythologists have given the name of Men, or Man, (equivalent to the Grecian Zeus considered as the Sun,) to Mitsrim? May not the priests of Diospolis have explained the name of Mines with reference to that of Mesre, to Eratosthenes, who has interpreted it *Dionius*, that is, *Jove-genitus?*

What answers may be given to these questions I know not; but I have little doubt, that Man, Men, or Menes, was a solar appellation, whether given also to any real personage or not. I likewise consider Man, or Men, to have been the same with Maneros, of whom mention is made by several Greek writers. Herodotus says, that the song called Linos by the Greeks is named Maneros by the Egyptians. The historian adds, ἔφασαν δέ μιν Αἰγύπτιοι τοῦ πρώτου βασιλεύσαντος Αἰγύπτου παῖδα μουνογενέα γενέσθαι, *the Egyptians say that he (Maneros) was the only son of the first king of Egypt;* and that having been cut off by a premature death, they sung

these mournful melodies in his honour; but that this song, (called after Maneros,) was the first and only one which they had in the beginning. (L. 2. c. 79.) Plutarch relates, that when Isis retired into the desert, and opened the chest which contained the body of Osiris, she was followed by the son of the king of Byblos. The Goddess turning round perceived him, and in her ire darted at him a look so terrible, that he died of the fright. This unfortunate youth was Maneros. But Isis appears to have repented of her cruelty; and caused a town to be built, called Palestinus, or Pelusius, because Maneros, according to some, also bore this name. *The Egyptians say that the Maneros, whom they celebrate in their festivals, was the inventor of music. Some affirm, however, continues Plutarch, that this was the name of no person; but a ditty suited to men drinking and feasting, that these things may be prosperous to them; for on this occasion the Egyptians always vociferate the Maneros.* (Plutarch. de Is. et Osir.)

Thus according to Herodotus, the Maneros was a mournful song, while from Plutarch's

account it would appear to have been one of joy and hilarity. But this might be as each one chose to understand it. The figure of a dead man was introduced; and it was said, *Behold that corpse; you will resemble it after your death; drink now, therefore, and be merry!*

Linus, according to Diodorus Siculus, (L. 3. 66.) was the first who invented rhythms and melodies among the Greeks. Hence the Greeks ascribed to Linus the ancient mournful song which went by his name. The whole story about Linus is probably a fiction. The song in question was apparently translated out of Phœnician into Greek; and the Greeks borrowed the name of Linus from that language. One of the significations of the verb לון, *lun*, in Hebrew, is, *to murmur, to complain.* In *Hiphal* we find הלין, *helin, he has murmured,* or *complained.* The same verb signifies *pernoctare.* With the Greeks, Αἴλινον, and Αἴλινα, seem to be generally used as exclamations of grief. (See Sophocles in Ajace flagell.) Moschus uses αἴλινα; but the more common exclamation was αἴλινον. Callimachus

uses αἴλινα adjectively, (Hymn. in Apollin. v. 20.) where we must translate it *lamented*. Euripides says that the barbarians commence their songs of sorrow, when the blood of their kings has been shed, by exclaiming αἴλινον. The barbarians whom he meant were probably the Phœnicians and Syrians. This cry, I should think, originated with the priests of Adonis, or Thammuz, *whose annual wound* was lamented by the worshippers of the Sun, after that luminary, at the autumnal equinox, had descended to the lower hemisphere. It was then, I conceive, that the heliolators, rising before the dawn, and waiting for the appearance of the God of light, sent forth mournful cries, and exclaimed, אי לן, אי לן; *ai lun! ai lun! Alas, he is dwelling with the night! Alas, he tarries with the night!*

Thus the song of lamentation for the dead Adonis may have been called *ailun*, or *ailin*; or perhaps *lun*, or *lin*, *a complaint*. Neither is it improbable that the Phœnicians may have personified the Sun under the name of *Lun*, or *Lin*, whether as being lamented by his adorers, or

whether as abiding with the night during the winter months.

I should imagine that among the Greeks Linus was originally a solar personification. The far greater part of their mythology was borrowed from Egypt and the East; but they never kept it as they found it. If any circumstance seemed to authorise a change, their creative imaginations quickly produced one. In a fragment of Hesiod, Linus is called the son of Urania. The epithets of mild and gentle are bestowed on him. The musicians celebrated his praise at festivals; and at the beginning and the end of every song, they called on the name of Linus. It is not improbable then, that the Phœnicians may have employed the word *lin*, which still exists in Arabic and Syriac, and which signifies, mild, gentle, graceful. The Greeks may have confounded *lin* with *lun*, and have described their Linus accordingly.

Now to return to Maneros. We see plainly that the mythologists had connected him with Adonis and Linus, because according to Plutarch he was the son of the king of Byblus.

The king of Byblus was of course called the מלך, *melekh*, of Byblos, in Phœnician, and *melekh* was a solar title, which might be applied in this instance to the Sun, and have signified that luminary, also called אדוני, *Adoni*, or *Lord*. But Maneros here is personified, and represents the mournful songster who bewails the death of the Sun. He is fabled to have been present when Isis opened the chest in which was the body of Osiris, and to have perished in consequence of the look which the Goddess gave him in her anger. The meaning is, that when the Sun returns to the upper hemisphere, symbolised by the taking of the body of Osiris out of the coffin, Isis, representing Nature, reproves those who continue to sing elegies, and to deplore the death of the God; and immediately causes their lamentations to cease.

But as Linus, whom Diogenes Laertius makes the son of Mercury, and Virgil the son of Apollo, was probably a personification of the Sun among the Phœnicians, so Maneros appears to have been the same luminary personified among the Egyptians. Herodotus, as we have seen, calls

him the only son of the first king of Egypt. Was he then Helios the son of Phthah; or Horus the son of Osiris; or the son of Men, or Menes? It would appear from Plutarch, that he was the son of Adonis, and Adonis was the Phœnician name of the deity called Osiris by the Egyptians. Men, or Menes, or Mines, was himself called Dionius by the Greeks, and the Egyptians consequently called him the son of Osiris. Men, or Menes, was, however, the same, as has been already shown, with Osiris; and it will presently appear that Maneros was the same with the latter. Thus have the Greeks confused Egyptian names, and blended the ancient history with the mythology of Egypt.

Osiris and Horus, as every one knows, were personifications of the Sun. Men, or Menes, was the same, (*omnibus consentientibus*, says Jablonski) with Maneros. But Menes, as I have stated above, was the same with Osiris. By perhaps yet stronger proofs Maneros can be shown to have been likewise the same with Osiris. Let us hear Julius Pollux: *Αἰγυπτίοις μὲν ὁ Μανέρως γεωργίας εὑρετὴς, Μουσῶν μαθητής—*

among the Egyptians Maneros was the inventor of agriculture, and the disciple of the Muses. At the word *Μανέρως*, Hesychius says, *τοῦτόν φασιν Αἰγύπτιον ὁμολογῆσαι πρῶτον, παρὰ Μάγων διδαχθέντα.* The text is evidently corrupt. Jablonski, who cites this passage, replaces *ὁμολογῆσαι* by *θεολογῆσαι. They say this was the first Egyptian who discoursed concerning the Gods, having been instructed by the Magi.* These *Magi*, as Hesychius calls them, were probably those priests whom the Hebrew historian calls חרטמי, *Chartomi*, and whom I have shown elsewhere to have been the sacred scribes. Now let the reader compare these statements with what has been said of Osiris. Maneros was the inventor of agriculture. The reader will remember the verses of Tibullus—

Primus aratra manu solerti fecit Osiris,
Et teneram ferro sollicitavit humum.

But Maneros was the disciple of the Muses. Diodorus Siculus tells us that Osiris loved gaiety, and delighted in music, in the song and the dance. *Διὸ καὶ περιάγεσθαι πλῆθος μουσουργῶν, ἐν οἷς παρθένους ἐννέα δυναμένας ᾄδειν, καὶ κατὰ τὰ ἄλλα πεπαιδευμένας, τὰς παρὰ τοῖς Ἕλλησιν ὀνομαζομένας*

Μούσας—He was therefore surrounded by a troop of musicians, among whom were nine virgins skilled in singing and instructed in other arts; the same who are named Muses by the Greeks. Maneros was the first who discoursed concerning theology, having been instructed by the sacred scribes. Here we have Maneros confounded both with Thoth and with Osiris, as the reader will easily see by a reference to Diodorus. (L. 1. S. 16.)

I have thus shown, that Men, or Menes, or Mines, was the same with Maneros, and that these names were merely appellations of the Sun. The name of Maneros indicates the Sun as the father of music, and it was as such that Osiris was described as delighting in the society of musicians. Maneros was probably written in Egyptian ⲘⲘⲚ-ⲫⲢ-ϩⲱⲥ, *Man-er-hos*, literally, *Sol faciens canere.* This name may sound strangely to modern ears; but it may have been pronounced by the ancients without exciting surprise; because the doctrine of the music of the spheres was generally taught among them; and the Sun was believed to be the cause of the universal harmony, and the conductor of the celestial chorus. (Macrob. L. 1.)

I shall now go on to examine the remaining names in the catalogue of Eratosthenes. As however I shall have frequent occasion to refer to the Coptic, it may be necessary to premise, that I by no means consider it as precisely the same with the ancient Egyptian. We may nevertheless generally trust to it, as furnishing us with the roots of words; and I believe that he who is master of the Coptic would have very little difficulty in soon reading the ancient Egyptian, if any legible specimens of that language were presented to him. At the same time considerable grammatical changes have probably been introduced into the language by the Copts. In the moods and tenses of verbs, for example, I should think alterations must have been made. Thus the infinitive in Egyptian seems to have been similar in sound both to the present participle, and to the past. *Ma-Amon* is equivalent to *loved by Amon* —*Er-mes*, to *causing to beget*, or *to bring forth*. In Coptic it would be necessary, not only to give the inflections of the verbs, but to place the preposition and the prefix before the oblique case of the noun. As, for example, to express

amans Solem, we must write ϵϥⲩⲁ ⲩⲫⲣⲏ, *ephma mphre*—to express *amatus a Sole*, we must write ⲩⲁⲏⲟϒ ⲓⲥⲭϵⲏ ⲩⲫⲣⲏ, *maeou isdjen mphre*. The ancient Egyptian was probably of a much more simple structure than the Coptic. During the times of the Ptolemys the language of Egypt was inundated with an influx of Greek words; and it was afterwards further corrupted by the introduction of many Arabic vocables, and perhaps of some Arabic idioms.[1] But I must proceed to execute, as well as I can, the task which I have undertaken.

2 & 3. Eratosthenes reckons Athothes, the son of Mines, as the second, and another Athothes as the third king of Egypt. He interprets the name of each Athothes by Hermogenes, *Mercurio genitus*. It follows, that they were brothers, that both were sons of Hermes, and that as Mines was the father of one, he was the father of both, and consequently the same with Hermes. But Philo Byblius tells us, that Athothes, whom the Egyptians call Thouth, and the

[1] Various Latin words have also been introduced into the Coptic. Cod. Ægypt. Reliq. Fragm p. 105.

Alexandrians Thoth, was the same with him whom the Greeks call Hermes. If Philo be right, Eratosthenes is wrong.

4. *Diabies.* This name is interpreted Φιλέστερος, *Philesteros*, which Goar proposes to read Φιλέταιρος; and few will be disposed to question the necessity of the amendment. The Egyptian name, however, eludes all my researches. Jablonski proposes to read it ⲦⲈⲂⲒⲰ, *Tebio*, which signifies *giving honey*. But what has *Tebio* and *giving honey* to do with *Diabies*, a name which, according to Eratosthenes, signifies *philetairos, loving society?*

5. *Pemphos*, says Eratosthenes, is to be interpreted *Heracleïdes*. The following remark is made by Jablonski—*hodie in Syncello legitur* Πέμφως, *quod Eratosthenes ex lingua Ægyptiorum interpretatur* Ἡρακλείδην; *quasi dicas, natum ex Hercule, Herculis stirpem; et id profecto* Σέμφως *Ægyptiis designat, &c.* I easily admit that ϪOU, or ϪⲈU, written ϭOU, and ϭⲈU, in Sahidic, was the Egyptian name of Hercules; but Jablonski does not explain very clearly the meaning of φως. Ἡρακλείδης does not signify

natus ex Hercule, but *Herculi similis*. It appears to me, that the name was written 𓄿𓂋𓅱𓊪𓏏𓊪, *Djemshosh*, in Egyptian. To express this name in Greek letters was impossible. Eratosthenes made it *Pemphos*, and translated it *Heracleides*. *Djemshosh* signifies *like Hercules—the equal, or match of Hercules*.

It may be here observed that Hesychius makes the name of the Egyptian Hercules *Gignon*, or *Gigon*; and that the author of the Etymologicon Magnum writes it *Chon*. These names seem to be corruptions for that of Saturn rather than for that of Hercules. Saturn appears to have been called כיון, *Chion*, by the Syrians, and كيوان, *Kioan*, or *Kivan*, by the Arabians.

6. The next name in the list is thus expressed and explained—*Τοΐγαρ Ἄμαχος Μομχειρὶ, Μεμφίτης, ἔτη οθ, οὗτος ἑρμηνεύεται τῆς ἀνδρὸς (lege τίσανδρος, aut melius τις ἀνὴρ) περισσομέλης*—*Tægar Amachus Momcheiri, Memphites, qui dicitur vir membris redundans*. Such is the text and the version according to Goar. Scaliger reads *Τοιγάραμος ἄμαχος χειρὶ, Μεμφίτης, ὁ ἑρμηνεύεται τίσανδρος*. Jablonski writes as follows—*Ex con-*

jectura mea, verba Ægyptiaca ita constitui possunt, Τοιγαρὰμ ἄχος μονχειρὶ, *Græca vero hunc in modum legi,* οὗτος ἑρμηνεύεται σώσανδρος περισσομέλης. *Nomen* Τοιγαρὰμ *fortasse erit Ægyptiace* ⲦⲞⲨⲤⲈⲢⲈⲨ, *compositum ex præfixo* Ⲧ, *atque duabus vocibus* ⲞⲨⲤⲈ, SERVARE, *et* ⲢⲰⲘⲒ, HOMO, *pro quo in compositione scribi solet* ⲢⲈⲨ. *Est igitur* ⲦⲞⲨⲤⲈⲢⲈⲨ, ὁ σώζων ἀνθρώπους, *vel brevius* σώσανδρος, *quod nomen Græcis scriptoribus non ignotum est. Si pro* ἄχος μονχειρὶ *scriberetur* ἀπὸς, *vel* ἀπὸφ μονσχφειρὶ, *hoc foret Ægyptiacum* ⲈⲠⲰⲪ ⲘⲞⲤ ⲎⲰⲪⲎⲢⲒ, GIGAS ADMIRATIONE PLENUS, *sive, prorsus admirabilis, procera nempe statura; qualis homo dicitur* περισσομέλης *a Manethone Ægyptio L.* 4. *Apotelesm.* v. 464. *Observationibus meis, l. c. vulgatis, hanc unam nunc adjungo. Potest forte servari* ἄχος, *et cum reliquis verbis Ægyptiacæ exprimi* ϪⅩⲰ. ⲘⲞⲤ ⲎⲰⲪⲎⲢⲒ, *Latine,* MAGUS RERUM MIRABILIUM PLENUS, *vel,* ADMODUM MIRABILIS.

Jablonski is generally erudite, sometimes ingenious, but not always accurate. If the Egyptian word ⲞⲨⲤⲈ, or rather ⲞⲨⲤϪⲒ, be taken as a noun, it signifies *salus;* but it is un-

fortunately masculine, and cannot be prefixed by T, the feminine article. It is equally obvious, that ⲟⲩⲭⲥⲉⲣⲉⲩ, *homo salutis*, or *homo sanus*, (if by the way such a word ever existed in Egyptian,) cannot be preceded by T, the feminine article; and it is strange how a thing so plain should have escaped the notice of the learned Pole. We must therefore dismiss King *Toudjerem*, and with him *Epoph* the giant, and *Acho* the *mage*.

We have already seen that Eratosthenes wrote *Diabies*, when it is clear that the Egyptians had no D in their alphabet; and now we find him writing *Toigar*, or *Toigaramos*, when it is equally clear, that the letter *gamma* occurs in no native Egyptian word.

Some writers think that by *Toigar*, or *Toigaramos*, Eratosthenes meant the king, who is called *Tosartasis* by Manetho. But supposing this to be the name, what are we to make of the Egyptian words which follow, and which are explained *vir redundans membris*? This interpretation is scarcely intelligible. It is a proof that Eratosthenes obtained his information from

persons very inadequate to the task of explaining the inscriptions found on the ancient monuments of Egypt.

Between the two readings of the text as given by Scaliger and Goar, I think we shall have no great difficulty in ascertaining pretty nearly the original Egyptian words, especially as we are assisted by the orthography of the name as written by Manetho. It appears then that as Manetho wrote *Tosar*, where Eratosthenes wrote *Toigar*, the latter must have substituted a Greek *gamma* for the Egyptian *shei*. In fact the Greeks, who had no equivalent for the *shei*, supplied it variously by *sigma*, *gamma*, *chi*, and even by other letters.

Having settled this point, we must next observe, that the Greeks often dropped the letter *hori* in writing Egyptian words in their own characters, and supplied it by an open vowel. Sometimes, however, they expressed this letter by *chi*, as we shall find was done by Eratosthenes in one instance, while he suppressed it in another.

Finally, the Greeks, in transcribing Egyp-

tian words, often placed a *chi* for a *kappa;* while the Egyptians themselves seem to have continually confounded the *laula* with the *ro.*

I read then with Scaliger, τοιγάραμος ἄμαχος, but with Goar *Μομχειρί*; and I put this into Egyptian—ⲦⲀⲰⲤⲈ-ⲈⲢ-ⲢⲈⲒ-ⲞⲰ-ⲀⲒⲀⲤⲒ-ⲞⲰ-ⲒⲞⲤ-ⲒⲢⲈⲢⲒ—*Tashe-er* (the proper name, signifying *qui magna faciat,*) combined with *rem-osh* (for *romi osh*) *vir magnus; amahi osh, valde robustus; moh-mkeri,* or *moh-nkeri* (for *moh-nkeli*) *membris plenus vel perfectus.*

Hence we see that Eratosthenes was deceived by his interpreters, and that περισσομέλης is not the proper version of ⲒⲞⲤ-ⲎⲢⲈⲢⲒ or ⲒⲞⲤ-ⲎⲢⲈⲖⲒ, which does not signify a man with more limbs than enough, but a man who is full, perfect, or complete in his members. I thus render the words in English—*Tashe-er* (*the doer of mighty things*), *a great man, great in strength, and full, or perfect, in his members.*

7. Στοῖχος, *Stoichos,* in Goar's edition of Syncellus is interpreted Ἄρης ἀναίσθητος; but Jablonski proposes to read ἄρις for Ἄρης. The word ἄρις signifies, literally *carens naso,* but

metaphorically *non sentiens, non sagax.* Thus ἄρις means nearly the same thing with ἀναίσθητος. Jablonski might also have observed in favour of his reading, that Mars had no equivalent in the Egyptian Pantheon. The original Egyptian name is supposed by Jablonski to have been CΘOIXШ, *ponens odorem.* All this is ingenious; but is it true? There can be no doubt that *Mars absque sensu* could not be the proper version of *Stoichos,* because the Egyptians had no such deity as Mars; but Eratosthenes, or his interpreters, may not have considered this, and may have meant to represent one proper name by another, which was thought to answer to it. Now there may be great reason to think, that Nimrod, (the son of Cush, who was himself often termed Cushi,) was the prototype of Mars. That Nimrod and Belus were the same I have amply proved in my first volume. The Greeks interpreted Bel, sometimes by Saturn, and oftener by Jupiter. But Jupiter *Enyalius,* according to Histiæus, was a Babylonian deity. This Jupiter *Enyalius* was therefore the same with Belus. Again, Bacchus and Mars were

each known by the name of *Enyalius*, as is attested by Macrobius. Was not Bacchus so named, as having originally been called *Bar-Chus*, the son of Cush? Might not Mars have been so named because *Enyalios* is an appellation corrupted by the Greeks from the Chaldaic, in which language it was composed from חנה and אל, and signified *the strong God, the encamper?* Hyginus in one of his fables says, *Belus, Neptuni filius, gladio belligeratus est; unde bellum dictum.* According to the Alexandrian Chronicle, *Thourras* (Θούῤῥας) the successor of Ninus, and grandson of Belus, or Nimrod, gave his name to the planet Mars; and a name very like this seems to have been associated with that of Mars by Homer. But the reader may consult Salmasius, (in Solinum,) who has fully discussed this matter with respect to *Thourras*. We have evidence, however, to show, that the son of Cush was the Babylonian Mars; and that Nimrod, or Belus, may be considered as the prototype of the Grecian *Ares*. We find the following statement in the Alexandrian Chronicle—ᾧτινι Ἄρει ἀνέστησαν πρώτην στήλην οἱ Ἀσσύριοι, καὶ ὡς Θεὸν προσε-

κύνουν αὐτὸν, καὶ ἕως τοῦ νῦν καλοῦσι Περσιστὶ τὸν Βαὰλ (lege Βῆλ) θεὸν, ὅ ἐστι μεθερμηνευόμενον Ἄρης. *To which Mars* (meaning Thourras) *the Assyrians raised the first column, and adored him as God, and even now they call him by the Persian name of Bel, which is interpreted Mars God of wars.* From this it is plain that Belus was really the Babylonian Mars. But let us further consider the Greek name of this deity. I am well persuaded that Ἄρης was a name originally derived from the Persian اذر, *Atser*, *Mars*. Bel and Atser were the same, as we see in the compound name of the king of Babylon called בלשאצר, *Belshatser*, that is, בל־ש־אצר, *Bel, qui et Atser—Jupiter, qui et Mars.*

Belus, or Nimrod the Cushite, was then the original Mars. The name of *Chos* occurs in several instances in the lists given by the Greeks of Egyptian names; and consequently Cush was a name well known in Egypt. The Greeks, in the time of Eratosthenes, had become acquainted with the Chaldean mythology; and Eratosthenes himself could hardly have been ignorant that the son of Cush was the Mars of

the Babylonians. Besides, the father and son, or rather the progenitor and the descendant, might be mistaken for each other. The Persians and Arabs continually confound Nimrod with Cush; and the Chaldeans may have done the same thing.

I am of opinion that the old reading of Ἄρης is still to be retained. The Egyptians had kings named *Chos*, *Bo-Chos*, and *Kaia-Chos*, as appears from Manetho; and they may have had another whom they named from his mental infirmity *Chos absque sensu*. The original Egyptian may have been COϪ-ϪOC, *Sodj-Chos*, *Chos amens*; and Eratosthenes, who had heard that the Chaldean son of Cush, Belus, was the Ἄρης, as well as the Ζεὺς, Ἐνυάλιος of the Babylonians; and who could not write COϪ, *sodj*, in Greek characters, expressed the Egyptian name by Στοῖχος, and rendered what he thought was its meaning by Ἄρης ἀναίσθητος, *Mars absque sensu*.

8. Eratosthenes calls the 8th king *Gosormies*. The Greek interpretation is ἑτησίπαντος, as it is given in Goar's edition of Syncellus. This is unintelligible. I would read ἕτης πάντων, *amicus*

omnium. It is not easy to ascertain what the original Egyptian might have been. Jablonski proposes ϪOC ⊖PЏШOϒI, *Djos ermooui, loquens lachrymis.* I think the name might have been ROC⊖P-Џ⊖I, *Kos-er-mei—Kos, making himself beloved.*

9. *Mares* is interpreted *Heliodoros, donum Solis.* It may also mean *beloved of the Sun.*

10. *Ἀνωυφὴς, Anoyphes, υἱὸς ἐπίκοινος, filius communis.* Jablonski thinks that this signifies *hermaphroditus, utroque sexu præditus.* He however accuses Eratosthenes of error, and proposes to read *Ἀνώυμις*, ⊖HШOϒЏIC, or ⊖HШOϒ-ЏICI, which he translates *filius gloriose genitus.* But where is the word for *filius?* If such a word as ⊖HШOϒЏICI exist, it can signify no more than *gloriose genitus,* allowing that it can signify so much. Jablonski proposes to read *Ἀνωυφὴς*, or rather *Ἀνώυμις υἱὸς ἐπίκλεινος, Anoymis, filius illustris.* This is to cut the knot; not to untie it. The mistakes of Eratosthenes are no doubt great and frequent; and the Egyptian names which he gives are often, indeed always, corruptions, more or less manifest, of

the original words; but in this instance I really am unable to see what we get, by changing *filius communis* into *filius illustris*. Κοινὸς and ἐπίκοινος signify *communis, promiscuus, pollutus*. By υἱὸς ἐπίκοινος Eratosthenes might have meant a man of vulgar, or perhaps of impure origin—a son of dishonourable birth. In Egyptian this might be expressed by a combination of words, which, with the exception of a single letter, would come very near in sound to the Greek. This letter is the *djei*, for which there is no equivalent in the Greek alphabet, and which the Greeks therefore either dropped in writing Egyptian words, or expressed by some character which they thought to be most like it. In the present instance Eratosthenes has omitted the *djei* altogether. ⲁⲛⲟⲩϫⲫⲉ, *anooudjphe*, would signify literally *non præclare, vel non honeste, natus*. This word seems to be expressed in Greek letters by ἀνωυφὴς, *an oüphes*, with the exception of the Χ, *djei;* and is not unfaithfully rendered by υἱὸς ἐπίκοινος, *filius communis*, or rather *filius impurus*.

11. The eleventh king is called Σίριος by

Eratosthenes, who interprets this name υἱὸς κόρρης, *filius genæ;* but who adds, that according to others it was explained as signifying ἀβάσκαντος, *carens invidia.* Part of the original name has been evidently omitted through the carelessness of the copyists. *Sirios* represents ⲰⲢHPI, *sheri, filius.* The remainder of the name has been left out.

12. Χνοῦβος Γνευρὸς ὃ ἐστιν Χρύσης, Χρυσοῦ υἱός —*Chnoubos Gneuros, qui Aureæ, vel Aurei filius.* Scaliger gives the text Χνοῦβις Χνεῦρος; and Salmasius proposes to read Χνουβσιρί. Jablonski thinks ϪHOϒB in Egyptian to be equivalent to ϬHHOϒB, *aureus;* and he considers the letter Ϫ as equivalent to the article. Scaliger seems to have read Χνοῦβις, as bringing the name nearer to that of *Anubis.* Salmasius probably supposed the reading of Χνουβσιρὶ, for which the name as written by Eratosthenes gives no authority, in order to account for the interpretation, of which υἱὸς, *filius,* makes part. Jablonski has said, HOϒB *Ægyptiis est aurum. Accedit* Ϫ *articuli instar,* ὁ Χρυσός.—Upon this statement I shall only observe, that as far as my know-

ledge goes, the letter ϫ is never used for the article, and never supplies its place.

The Greeks were continually deceived by their interpreters about the meaning of Egyptian words. The sound of ϫⲎⲞⲨⲂ, *chnoub*, is not very unlike ⲎⲞⲨⲂ, *noub*, *aurum*. Hence the interpreters employed by Eratosthenes, seem to have decided that ⲎⲞⲨⲂ entered into the composition of the word which they pronounced ϫⲎⲞⲨⲂ, but which we shall presently see was only a corruption of the original Egyptian.

When Aristides visited Egypt, about three centuries and a half after the time of Eratosthenes, he was informed by a priest, who was not the most despicable of his class (οὐ τοῦ φαυλοτάτου), that the name of *Canobus* signified χρυσοῦν ἔδαφος, *aureum solum*. Thus the Egyptians must not only have worshipped a deity called *Golden ground*; but they must have given this strange name to the brilliant star in the constellation of Argo. Can we doubt that the priest took the first words he could find which resembled *Canobus* in sound; and thus satisfied, without further trouble, the curiosity of the inquisitive Greek?

That the interpreters employed by Eratosthenes should have given him Χνοῦβος as the name of an Egyptian king, and should have translated it by Χρύσης, or Χρυσοῦ υἱὸς, cannot much surprise us, after the specimens we have already had of their ignorance; but we may wonder, that such men as Salmasius and Scaliger could admit such interpretation. *Aureæ vel Aurei filius* are words devoid of common sense.

I read Χνοῦβις, Χνεῦρος, with Scaliger. These words I consider as corruptions for ϘϹΗ ΗΟΥΦΙ, ϘϹΗ ΗΟΥΡΟ, *Ken nouphi, Ken nouro*, which I interpret, *filius bonus, filius regis*. The name seems to be opposed to that of a former king, whose name announced that his birth was dishonourable.

But it is necessary to explain why I translate *Ken* by *filius*. The Egyptians, says Horapollo, when they wished to denote a son in hieroglyphical writing, Χηναλώπεκα ζωγραφοῦσι, *painted a vulpanser*. The same bird was called ϘϹΗϹ-ϹΟΟϹ, *kenesoos*, in Egyptian; and was often, we may easily believe, abbreviated to *ken* in common discourse. Neither is it unlikely that

the Greeks borrowed their word χὴν, *chen, anser*, from the Egyptians. Be this as it may, however, there can be no doubt that Horapollo was accurate. The vulpanser is frequently found on Egyptian monuments as the hieroglyph for a son. This being the case, *kenesoos*, or shortly *ken*, may have been, and probably was, often used in ancient Egyptian to denote a son.

But the bird called *kenesoos*, or *ken*, might have been chosen as the symbol of a son, because in remoter times *ken* signified a son in Egyptian. I observe, that *chen*, or *ken*, occurs in several instances in the composition of names as they are given in Manetho's list of Egyptian kings. *Kenkenes*, for example, ought to be the same with the second *Athothes* of Eratosthenes; and consequently the second son of Menes, or Mines; and certainly if I be right in explaining the meaning of *ken*, *Kenkenes* would sound very like RϾH-RϾ-HϾϤ, *Kenkenef, filius alter ejus*.

The supposition, however, which I have made is not likely to be admitted by those, who think that every ancient word which was spoken in the time of the Pharaohs is to be found in the

Coptic vocabulary. Perhaps Egyptian words form an exception to the remark of Horace:

Prima cadunt: ita verborum vetus interit ætas,
Et juvenum ritu florent modo nata vigentque.

13. In the Greek text the name of the 13th king is written, Ῥαύωσις, *Rauosis*; though Goar makes it *Ranosis* in his version. It is interpreted ἀρχικράτωρ, *princeps robustorum.*

This word seems to be composed of PH, *Re*, ⲱⲥ, *osh*, and ϬIOC, *sios*—*Reoshsios, Sol, magnus dominus*; or perhaps of PO, *Ro*, OϒOϩ, *ouoh*, ϬIOC, *sios*, *Roouohsios, Rex et Dominus.* That *Ro* was anciently written for *ouro, Rex*, is sufficiently proved by Woide.

14. Eratosthenes gives no explanation of the name of *Biyris.*

15. Σαῶφις, *Saophis.* In the text, according to Goar, this name is interpreted Κομαστὴς, *comatus.* But we must either read Κωμαστὴς, *comissator*; or Κομήτης, *comatus.* I prefer the latter reading, because *Saophis* appears to be a corruption of the Egyptian words ⲱϩOϒ ϤⲰI, *sheou phoi, alens comam.* In fact *sheou*

phoi is a pleonasm, used to express the great abundance of hair.

16. Σενσαωφις *B. Sensaophis secundus*, according to Goar—Σεναωφις Δεύτερος, *Senaophis secundus*, according to Scaliger.

Jablonski labours hard to prove, that Δεύτερος is the version of the name Σεναωφις. ϹΗϪϒ, *snau*, signifies *duo*, and ϹΗϪϒϤ, *snauph*, he thinks, ought to signify *secundus*. *Senaophis* is consequently the same word, slightly altered, *euphoniæ causa*. But why should the Egyptians have taken a naked numeral for the name of one of their kings? Jablonski remarks that *Secundus* was used for a proper name. The reason is obvious. *Secundus* was used as equivalent to prosperous; but this is peculiar to the Latin language. The ingenious argument of Jablonski is, however, completely overthrown by the reading in Goar's edition of Syncellus. The name is there written *Sensaophis*. The indefatigable etymologist interprets this name ϭΗϴ ϪϢϤ, *Sne djoph, subjicere se, vel subjici, et subjectum esse*. As Eratosthenes gives no interpretation of this name, I might leave it in the

hands of Jablonski; but I shall merely observe, that as Cϴ, *se*, signifies *filius* in Egyptian, according to M. Champollion, *Sensaophis* ought to be rendered *son of Saophis*.

17. *Μόσχερις*, *Moscheris*, is rendered *Ἡλιόδοτος*, *Heliodotus*, *donum Solis*. I know not how to put this name into Egyptian. It is clear, however, that UOI, *moi*, *dare*, and PH, *re*, *sol*, must have come into the composition of the word.

18. *Mousthis*. This name is not interpreted by Eratosthenes.

19. *Πάμμος*, *Pammos*, is explained by *Ἀρχονδὴς*, *Archondes*, which I take to be an error of the copyist for *ἀρχοειδής*. The Egyptians appear to have occasionally pronounced the name of Amon, either *Am*, or *Amu*. Had not this been the case, why should the Greeks have also occasionally written it *Ammous*, and *Amous*? Hesychius writes *Ἄμμους· ὁ Ζεύς*—*Ammous: Jupiter*, on the authority of Aristotle; and Plutarch says, the Egyptians think Jupiter to be *τὸν Ἀμοῦν*. Plutarch would therefore have written *Ἀμοῦς* in the nominative. Let this be considered by those who deny, that Amon may be

derived from Cham, by the suppression of the harsh aspirate. The Egyptians had the custom of prefixing the definite article to proper names borrowed from those of their Gods; and this custom was retained even after the introduction of Christianity into Egypt. Accordingly we hear of priests and monks among the Copts called *Pi-Or*, *Pi-Ammon*, &c. The name before us is that of the deity *Amon*, *Ammon*, *Amous*, or *Ammos*, preceded by the article, *P-Ammos*.

20. Ἀπάπους, *Apapous*, whose name is interpreted Μέγιστος, *Maximus*, is said to have reigned for 100 years, *minus* one hour. He was probably the same with the *Phiops* of Manetho, who reigned for 94 years, and lived for 100 years. Both these words are corruptions. The word for *a giant* in Egyptian is ⲁⲫⲱⲫ, *aphoph*; and ⲁⲫⲱⲫⲱϣ, *aphophosh*, would signify *a great giant*. This is consequently the original of the *Apapous* of Eratosthenes, who could have been no other than the *Apopis*, mentioned by Plutarch, the brother of the Sun, who fought against Jupiter. (De Isid. et Osirid.) Jablonski, in his Pantheon, has fully proved the identity of Apopis and Typhon.

21. *Ἀχεσκὸς, Ὀκάρας, Acheskos, Ocaras.* This name is not interpreted by Eratosthenes.

22. *Ἐβασίλευσεν Νίτωκρις, γυνὴ, ἀντὶ τοῦ ἀνδρὸς, ὅ ἐστιν Ἀθηνᾶ Νικηφόρος, ἔτη ϛ, Nitocris, a woman, reigned, instead of a man, during 6 years: the name signifies Minerva victorious.* Jablonski asserts that this name is composed of ⲎⲐⲒⲰ, *Neith, Minerva,* and ⲀⲔⲢⲒ, *akhri, σώζειν, servare.* But this would give us *Minerva conservatrix,* and we want *Minerva victrix.* Besides, Jablonski has neglected to tell us where he found the word ⲀⲔⲢⲒ, *akhri.* I am inclined to think that the Egyptian name was ⲎⲐⲒⲰ-ⲤⲢⲞ-ⲤⲒ, *Neithsrosi, Minerva, victoriam ferens;* of which *Ἀθηνᾶ Νικηφόρος* is a literal translation.

23. *Μυρταῖος, Myrtæus, Ἀμμωνόδοτος, Ammonodotus, donum Ammonis.* I agree with Jablonski in thinking, that *Μυρταῖος* should be read *Ἀμυνταῖος*; and that the Egyptian name was ⲀⲘⲨⲚ ⲦⲀⲒⲞ, *Amun taio*—literally *Amoun-given.*

24. *Θυοσιμάρης, Thuosimares,* is interpreted *Κρατταῖος, ὅ ἐστιν ἥλιος, fortis, qui est Sol.* Jablonski thinks that a Θ has been erroneously put for an O; and reads the name in Egyptian ⲞⲨⲞⲎⲘ

ⲞⲨⲚ ϬPH—*ouonsh-djom-ere*, which he translates, *potens, qui est Sol.* This would answer exactly to the version given by Eratosthenes. *Ouonsh-djom* signifies *potens*, and *re* signifies *sol*; but Ϭ is a preposition signifying *ad, apud, in*, which Woide says governs the accusative case. If the grammarian be right, Ϭ cannot be equivalent to *qui est*; and *potens apud Solem* would be an expression totally unintelligible. I would propose the following interpretation. *Sem* was the Egyptian Hercules; and his name literally signifies *robur*. Now if we read the name given by Eratosthenes thus, ⲐⲞ-ϬⲈⲨ-ⲨⲘ-PH, *Tho-sem-ma-re*, which is not very remote from *Thuosimares*, we shall have an Egyptian name which signifies, *multiformis robur, donum Solis*; or as I would rather interpret it, *Hercules multiformis, donum Solis, vel amatus a Sole.* This name is not so much removed from that found in the text as *Ouonshdjomere*, proposed by Jablonski.

Orpheus addresses Hercules—*Αἰολόμορφε χρόνου πάτερ, O multiform father of time!*

25. *Thinillus, qui dicitur augens patrium im-*

perium Part of the name has apparently been omitted by the copyist. *Thinillus* seems to be a corruption for ϫΪΗϪΛΗΙϪΙϪΙ, *faciens inscendere*, or *faciens augere acervum.*

26. Σεμφρουκράτης, *Semphroukrates*, ὅ ἐστιν Ἡρακλῆς Ἁρποκράτης, *qui est Hercules Harpocrates.* This may be the symbol of the Sun at each equinox. I observe that in the zodiacs of Denderah, Harpocrates is represented near to both equinoxes. Hercules was ὁ ἐν πᾶσι, καὶ διὰ πάντων ἥλιος—*Sol qui in omnibus est, et per omnia*; and the peculiar representative of the Sun in his annual course through the zodiac. (The reader may consult La Cour Gebelin, and Dupuis. The treatise of the latter concerning the zodiacal Hercules may be found in one of the editions of Lalande's Astronomy.)

27. Ἐβασίλευσεν Χουθὴρ ταῦρος τύραννος ἔτη ζ.—I agree with Jablonski, that *Tauros* makes part of the Egyptian name, and is not to be taken for the Greek word signifying *a bull*, and as making a part of the interpretation. I cannot, however, assent to his opinion, when he reads Χουσθέρταυρος, Τύραννος; and puts *Chousthertauros*

into Egyptian ϪⲰⲰⲞⲐⲢⲦⲰⲢ, *Choshthertor*, and translates this name *terræ perturbator*. Surely Jablonski knew very well, that *Τύραννος* in Greek does not bear the same sense as *tyrant* in our modern languages. Why then was the earth to be disturbed by this Egyptian king, of whom nobody but Eratosthenes ever heard? Besides, I cannot find any example, where ϪⲰ. signifies *terra*. It seems to me, though I speak doubtingly, that the name in Egyptian was ϪⲞⲨⲤ, *Chous*, a proper name which has already occurred, and ⲦⲎⲢ-ϪⲰⲢⲒ, *ter-djori*, a pompous title, equivalent to *παντοκράτωρ*.

28. Scaliger reads *Μερὴς*, *Meres*, as the name of the 28th king, and translates it by *φιλόσοφος*, *philosophus*; while Goar gives the name *Μευρὴς*, *Meures*, and the translation *φιλόσκορος*, *philoskoros*.

But *Meres*, and *Meures*, are both corruptions for ⲨⲈⲒⲎⲞⲨ ⲢⲎ, *loved by the Sun*; or ⲨⲎⲒ ⲢⲎ, *donum Solis*.

29. *Χομαεφθὰ*, *Κόσμος φιλέφαιστος*. Jablonski contends, that the name should have been written *Χωμὰεφθὰ*; and as he found before that

ⲭⲓⲙ signified *terra* in Egyptian, he thinks that it answers here to κόσμος. That there may be such a word as ⲭⲓⲙ signifying *the earth*, and *the world*, I pretend not to deny; but I have not been able to find it. In the mean time I am disposed to think that Eratosthenes read the word ⲔⲀϩ, or ⲔⲞϩ-ⲨⲀⲘⲈⲪⲐⲀ, *Kah*, or *Kohmaephtha*. This name then would signify *terra amata a Vulcano*. But *the land loved by Phtha* was Egypt; and the king designated here must have been the same who is named *Ammeses*, or *Rammeses*, and who, according to Manetho, was surnamed *Ægyptus*. This circumstance makes me suspect, that Eratosthenes misinterpreted the name, and that Salmasius and Jablonski have done no better. In fact, Κόσμος φιλέφαιστος, *a world loved by Phtha*, is rather an obscure designation of Egypt; and a most obscure designation of the prince who had assumed the name of *Ægyptus*. But as the Egyptians themselves called their country *Chemi*, *Kame*, and probably *Cham*, and *Chom*. in some of their several dialects, Rameses, called *Ægyptus* by the Greeks, may have borne the name of

Kame, or *Chom*. It seems to follow that we should read the Egyptian name ϪOU-ЏϢI-ΦΘϢ, *Chom-mai-Phtha*, for which Eratosthenes has given us the corruption of Χομαεφθᾶ, *Chomaephtha*. The reader will judge which of these two names was the more likely to be found recorded as the name of an Egyptian king—*Chom*, (that is Ægyptus, otherwise called Rameses) *loved by Phtha;* or *a world, or land, loved by Phtha*. The former name recals the memory of one of the most celebrated of the Egyptian monarchs; the latter is an ænigma; nor is it easy to conceive how it could have been the appellation of a king.

30. Ἀγκούνιος, Ὀχυτύραννος, *Ankounios, Ochutyrannus*. The name should be read Ἀγκουνιοσοχὺ, τύραννος. Before I proceed to explain this name, I request my readers to turn to my first volume (p. 30.), where they will see what I have said of the Persian word *och*, which I have translated *rex*.

This king, *Ancouniosochu*, is said to have reigned 60 years. I much suspect that Eratosthenes, or his interpreter, totally mistook the

original words; and that instead of one king these words announced several. I likewise think that the words in question related to the Persian kings, who ruled Egypt from the invasion of that country by Cambyses to the time of Inaros, and Amyrtæus. The reader may perhaps be startled at hearing the Persian monarchs mentioned immediately after a king who appears to have been Rameses, and who probably reigned nearly 1000 years before the time of Cambyses; but if he has paid attention to the order of the names already exhibited in this list, he will scarcely be surprised at any anachronisms which it may contain. *Apapous*, or *Apopis*, for example, was the same with Typhon; and yet he is placed in this list as the 20th king.

The name now before us, as put into Greek letters—*Ἀγχουνιόσοχὺ*, appears to me to be a corruption for ΔΧΩΟΥΙ ΗΙΟΧΟΥΙ, *Achooui niochoui, Magi et reges*. In old Persian *och* was equivalent to *king*; and *dar*, or *daor*, or *dara*, to sovereign. Thus when the Greeks called *Darius Ochus* by that name, they only gave him

his Persian titles, which had nothing to do with his proper appellation as an individual. The words, which we are now considering, were probably deflected from the Persian to suit the Egyptian language. *Och* signified king; and *ak*, or *aka*, a lord; and this last title, as applied to the priests of Mithras, was perhaps oftener heard b yhe Egyptians, than *Mugh*, or *Mubad*. Detesting both the government and the religion of their Persian masters, they may not have much attended to the distinctions which existed in a barbarous tongue, for the Greek historian tells us that they called all men barbarians who could not speak their own language. Thus then the Egyptians adopted the word which they pronounced *acho*, and which is nothing else than a corruption of the Persian *aka*, *dominus*, as equivalent to *Magus*. There is nothing more likely then, than that giving Egyptian inflections to the two Persian words, *aka*, which they understood to signify Mage, and *och*, which signified king, they indicated their tyrants by naming them *Achooui-Niochoui; Magi, Reges*. Perhaps, however, the original words might have been ex-

tended to greater length, but from the recurrence of vowels, and from the introduction of letters which had no equivalents in the Greek alphabet, may have been contracted by Eratosthenes. If, however, we dispense with the *gamma*, which is superfluous, and which can have nothing to do with a word copied from the Egyptian, we may write *Akouniosochu;* and the original words may have been ⲁϫⲱⲟⲩⲓ-ⲟⲩⲟϩ-ⲛⲓⲱϣ-ⲟϫⲟⲩⲓ—*Achooui-ouoh-niosh-ochoui—Magi, et multi reges.* A Greek could hardly be expected to come much nearer to this, than by writing Ἀγκουνιοσοχύ.

31. There can be no question that Jablonski is accurate in interpreting Πενταθυρὶς, *Penteathyris*, by ⲡϩⲟⲛⲧ ⲁⲑⲱⲣ, *P'hont Athor*, High Priest of *Athor*, or *Athyr*.

32. The name of *Stamenenes* is not explained.

33. Σιστοσιχερμὴς, *Sistosichermes.* This name is interpreted by Eratosthenes Ἡράκλεος κράτος, *robur Herculis.* The orthography of the name is clearly mistaken; and Jablonski proposes to read *Ertosichermes. Ertosi* is mentioned by Cedrenus as the appellation of the planet Mars

among the Egyptians; and he adds—τοῦτο δὲ σημαίνει παντὸς γένους ζωογονίαν, καὶ πάσης οὐσίας καὶ ὕλης φύσιν, καὶ δύναμιν διατακτικὴν καὶ ζωογονικὴν—*this signifies the vivification (or procreation) of every species, and the regulating and vivifying (or procreating) nature and power of every being, and of matter.* Such is the rather prolix explanation which Cedrenus gives of the word *Ertosi.* This writer, no doubt, thought that the Egyptians called the planet Mars the star of Hercules, which Achilles Tatius asserts they did. The interpretation, therefore, of the word *ertosi,* as given by Cedrenus, would have answered exactly, as we shall see presently, to the name of Hercules. But Jablonski, who saw that to retain the sense, the orthography must be altered, writes ϵP ΤШΧI, which he explains —*vim habens et indens genitivam et seminalem.* Thus far then the etymology goes on well, but Jablonski writes the latter part of the name of *Sistosichermes,*—(that is, *chermes*) in Egyptian letters, ϰϵPЯЦЯϑI, *cheramahi. Er amahi* signifies *roborari;* and the letter ϰ answers to

the article. To this I cannot accede. In the first place, I can make neither sense nor syntax of such a combination of words; and in the next place, I cannot, without further proof than the assertion of Jablonski, admit the letter ☩ *articuli instar.*

But I very much suspect Cedrenus to have been mistaken, and Salmasius and Jablonski after him. I must also include Achilles Tatius in my charge of error. I do not think, that *Ertosi* bore the sense attributed to it by Cedrenus; that this word was equivalent to *er todji*; or that the Egyptians called the planet Mars, the star of Hercules. The planet Mars was always dreaded for its malignant influence by the Pagan nations. The Greeks were mistaken when they said that the Chaldeans called the planet Mars the star of Hercules. The Greeks would have it that the Orientalists confounded Hercules with Mars; but this does not appear to have been the case. The Chaldeans denominated the planet Mars either *Thur*, or *Bel*, or *Atser*. The Greeks were probably equally mistaken in supposing this

planet to have been called after Hercules by the Egyptians. The word *Ertosi* may have been the denomination in later times of a star which was no doubt an object of superstitious terror to the astrologers of Egypt as well as to those of other countries. But though the Greeks fancied that the Egyptians confounded Mars with Hercules, it is certain that there was no such deity as Mars in the Egyptian Pantheon; and we may be nearly certain, that the word *ertosi* was not composed of *er* and *todji*, as Jablonski thought, but of ЄP-T-OCI, *er-t-osi, faciens dare damnum*. I interpret the words literally. Such versions are, no doubt, too close for elegance; but no version can be too close for accuracy. The planet therefore, that was named *Ertosi*, was more probably considered by the Egyptians themselves, as the star of Typhon than as the star of Hercules.

In spite of the significations, which Cedrenus and Jablonski have given to the word *ertodji*, I am doubtful, whether it ever meant any thing else than simply *to plant*. Prepossessed with the idea, that the planet Mars was called the

star of Hercules by the Egyptians, Cedrenus attributed qualities to it, which were never supposed by astrologers to have belonged to it. Vettius Valens gave the name of Ἄρτης, *Artes*, to the same planet as its Egyptian name; and explained it as meaning *the destroyer of life and of all the good things attached to life.* This certainly answers more nearly to the notions of astrologers concerning the influence of this planet, than the statement made by Cedrenus. But I remember, that I once blamed Vettius for having said that the Egyptians gave this name to Mars, because *Artes* is not an Egyptian word. It has since occurred to me that after the Persian conquest, the Egyptians may have adopted the name of the planet in use among their masters, and have corrupted *Atser*, into *Arts*, which the Greek writer further altered into *Artes*. It remains to be considered, whether the Egyptian philologists did not carry the change to a yet greater extent—writing the name *ertosi*, in order to make it Egyptian.

With respect to the word employed by Eratosthenes, it seems to me, that *Ertodjichermes* is

too far removed from *Sistosichermes*, and could scarcely have been the name written by the Greek chronographer.

Before I proceed to state the name as I conceive it to have stood in the original Egyptian, I must observe that Salmasius and Jablonski appear to me to have been mistaken, when they sought the name of Hercules in any other word than in *ermes*. This position, I trust, will be made clear, when I come to speak of Siphoas, who was also called Ermes, or Hermes.

The Egyptian Hercules was in many respects the same with Horus, and may be particularly identified with him as the regulator and measurer of time. The proofs of this assertion have been already advanced by Jablonski; and I conceive it unnecessary to repeat them here.—I shall, therefore, only observe, that both these deities appear to have represented the Sun as presiding over stated periods of time. I read the name of *Sistosichermes* in Egyptian—ϬIOC-ΘϪШ, *vel* ΤΗШ, *vel* ΤШШ,—IϦ-ЄP-UЄC. We may then write it in Roman letters *Sios-tosh-ich-er-mes*. These words would literally signify

—*Dominus temporis statuti, dæmon, vel deus, faciens nasci,* or *faciens gignere.* We may, therefore, understand the name to signify *Dominus temporum, deus genitor.* In the inscription in hieroglyphs on the obelisc of Ramestes, explained by Hermapion, Horus is called *Lord of seasons;* and Nonnus addresses Hercules, as driving the solar orb, (which he personifies as the son of time) in its annual revolution round the heavens. We shall soon have occasion to consider Hercules as representing the generating power of the Sun.

34. *Maris.* This name is not explained.

35. Σιφώας, ὁ καὶ Ἑρμῆς, υἱὸς Ἡφαίστου, *Siphoas, qui et Hermes, filius Vulcani.*

Salmasius and Jablonski read *Siphthas,* or *Saphthas.* It is indeed obvious, that the name was originally written with a Θ, which through carelessness was changed into an O, and this again into an Ш. But the name in Egyptian must have been ϹЄ-ΦΘϢϩ—*Se-Phthah, son of Phthah.*

Jablonski thinks that *Saphthas,* as he calls him, was not surnamed *Hermes,* i. e. *Mercurius;*

but *Ermeh*. I quite agree with Jablonski, that the son of Vulcan was not the same with Mercury; but I cannot assent to his conversion of *Ermes* into *Ermeh*. The word ϵPⲘϵϩ, *ermeh*, signifies *to make full or complete*. ϵPⲘϵϹ, *ermes*, signifies *to generate, or to cause to generate*. The words of the text tell us that the latter was the name. Why are we to alter it to the former? *Ermes* was a name well known; *Ermeh* is one imagined by the learned Pole.

It may not the less be well questioned, whether the Egyptians ever gave the name of Hermes to Thoth. Eusebius cites, without contradicting, the words of Philo Byblius—*Taautus, whom the Egyptians call Thouth, the Alexandrians Thoth, and the Greeks Hermes.* (Pr. Ev. L. 1.) It is clear that Hermes was an Egyptian name; but the Greeks generally applied it to Thoth, to whom it seems never to have been given by the Egyptians themselves. The consequence was, that they blended two characters into one, and ascribed qualities to Thoth, which the Egyptians attributed to a different deity.

It appears to me that, among the Egyptians,

ϵPUϵC, *Ermes*, was a solar title which had nothing to do with Thoth, but which was applied to the Sun, considered as a symbol of the generative principle, and also to *Sem*, or *Djem*, the Egyptian Hercules, as the representative of the power and strength of *Sol-generator*. *Ermes*, literally signifying, as I have already stated, *faciens gignere*, or *faciens parere*, was a name in no manner applicable to Thoth. The Greeks, who appear at a very early period to have given the appellation of Hermes, or Ermes, which belonged to *Sem*, to *Thoth*, confounded them together, and ascribed qualities to *Sem*, which properly appertained to Thoth, while they represented *Thoth* with attributes which were characteristic of *Sem*. Consequently what the Greeks have said of one of these deities should have often been said of the other.

Sem, or Hercules, symbolising the strength of *Sol-generator*, might be properly represented under that character; but Thoth, the inventor of letters, and the father of the sciences, had a totally different part assigned to him by the mythologists of Egypt. Those *Hermæ*, of which

any account requires indeed to be veiled under the obscurity of a learned language, could never have been intended as the images of Thoth. Herodotus (L. 2. c. 51.) says that the Greeks learned to make their indecent images of Hermes from the Pelasgi and not from the Egyptians. The historian thought so, no doubt, because he could have found no statues of Thoth resembling those which the Greeks called the images of Hermes. But there can be no question that the Egyptians had images of the deity whom they called *Ermes*, exactly answering to the description given by the Greeks of the *Hermæ*. It is clear from a passage in Plutarch, however, that the Greeks fancied these images to represent Thoth. The reason which he gives is absurd. Macrobius says, *Pleraque etiam simulachra Mercurii quadrato statu figurantur, solo capite insignita, et* τοῖς αἰδοίοις αὐτῶν ἐντεταμένοις; *quæ figura significat, solem mundi esse caput, et rerum satorem.* Such images could not have represented that Egyptian Thoth, or Theuth, εἴτε τις θεὸς, εἴτε καὶ θεῖος ἄνθρωπος, *whether a God, or whether a godlike man*, as Plato says, *who first*

invented letters and instructed his countrymen in the arts and sciences. It is in vain that Cicero distinguishes between five deities that bore the name of Mercury. The original Hermes of the Greeks was the Egyptian Thoth, whose character they blended with that of Sem, or Hercules, from not being aware that the name of Ermes belonged to the latter, and not to the former. All their confused legends about Hermes Trismegistus, of a first, second, and third Hermes, have been in vain imagined by them to explain away, or to reconcile inconsistencies. It is besides to be observed that they confounded Anubis with Thoth, and erroneously gave the appellation of Hermes to both.

The Greeks ascribed to their Hermes many of the qualities of Anubis. They fancied, from his name, that this deity was the God of gold; and hence the money-God whom they still called Hermes. But Anubis was the mythological type of the deity presiding over the horizon. It was thus that he was supposed to be the deity ruling the planet Mercury, and which is never visible but when near the horizon. For the same rea-

son he presided at the heliacal rising of Sirius, the star which most occupied the attention of the Egyptians. But Anubis had no more similarity to the Hermes of the Greeks, considered as *Sol-generator*, and as *rerum-sator*, than Thoth.

Sem, or Hercules, on the contrary, described by Macrobius, as *potestas Solis*, answered to the character of Hermes as represented by his images. The reader will remember the epigram of Quintus Smyrnæus—

> *Tertius hinc decimus labor est durissimus: una*
> *Quinquaginta simul stupravit nocte puellas.*

But Iamblichus, a graver writer than this Quintus, calls Hercules τὴν δύναμιν τῆς φύσεως, *the power of nature.* Macrobius says, *Præterea sacrorum administrationes apud Ægyptios multiplici actu multiplicem Dei asserunt potestatem, significantes, Herculem hunc esse* τὸν ἐν πᾶσι, καὶ διὰ πάντων ἥλιον, (*solem in omnibus, et per omnia.*)

But if the Greeks gave to Thoth, under the name of Hermes, qualities which, under the same name, they should have given to Hercules; they have again amply endowed this last deity with qualities which belonged, not to Sem, but

Thoth. The Egyptians would have been strangely surprised to have learned from Theocritus, that while Thoth, the grave counsellor of Osiris, gave lessons in wrestling, the sturdy fingers of Hercules could bring music out of the strings of the lyre. Even those who are accustomed to the marvels and metamorphoses of Grecian mythology, may wonder when they hear that Hercules laid down his mace to take up his pen, and taught the Phrygians how to form their letters. (Cic. de Nat. Deor.) After this it is not extraordinary that he should be found in the society of the Muses, that he should have become their leader, and that Fulvius should have built a temple *Herculi Musarum.*

The superstitions of Egypt had passed from Greece into the rest of Europe; but *Ogmius,* the Hercules of the Gauls, for example, resembled the Thoth, and not the Sem, of the Egyptians. According to Lucian, the Gallic Hercules was a wise and eloquent deity, more remarkable for his persuasive oratory than for his stature or his strength. It however appears that both the Gauls and the Germans represented Thoth

under very different colours. Tacitus says of the Germans, *Deorum maxime Mercurium colunt, cui, certis diebus, humanis quoque hostiis litare fas habent.* From Lucan's account, the Thoth of the Gauls was not of a gentler nature—

Et quibus immitis placatur sanguine diro
Teutates, horrensque feris altaribus Hesus.

Thus Hercules appears to have been mistaken for Thoth by the barbarians, while they confounded Thoth with Mars and with Moloch. The Etruscans followed the example of the Greeks; and when they did not degrade their Mercury by placing him among thieves, they represented him as the symbol of lubricity, and gave him Pan for a companion; and yet withal strangely confounding him with the God of eloquence, and the inventor of the arts and sciences.

The Greeks, however, appear, in some instances at least, not to have known how to separate Hercules from Hermes. If Hermes had his *stelæ*, Hercules had his columns. The rocks, called *hermata*, were apparently named from Hermes; but they were cast into the ocean by the powerful hand of Hercules. He

who associated with the Muses, would seem to be Thoth; but he who broke the head of Linus with his lyre, would seem to be Hercules. If Hermes presided over high-ways and boundaries, Hercules was generally found at his side. A Greek inscription on a figure of Hermes, cited by Mazzochi, is to the following effect—*Ye, who are publicly travelling this road, whether going to the country, or coming to the citadel, we two Gods are guardians of the boundaries; I, Hermes, such as you see me, and this other Hercules!*

It is clear, I think, that the Egyptians could not have meant Thoth by Hermes. Athothes was called Hermogenes, and the son of Mines. Mines and Hermes were therefore the same. But Thoth and Athothes were the same; and therefore Hermes, the father of Athothes, could not be the same with Thoth.

Sem was the Sun *in omnibus, et per omnia.* I have shown that Men, Menes, or Mines, was a Solar appellation; and that Ermes, signifying *faciens gignere*, or *faciens parere*, was most probably a denomination in Egyptian of *Sol-generator*. Thus we can understand how Athothes, or

Thoth, could be called at once Hermogenes, and the son of Mines. It is impossible to understand what could be meant, if Athothes, who was Thoth, had been said to be begotten by Hermes, who was also Thoth.

The Greeks gave the name of Hermopolis to two Egyptian cities, one of which they called the great, the other the small. By the ancient Egyptians the former appears to have been called after *Smun*, or *Smin*, the same with *Chem*; and the latter was denominated *the village of Horus*. If Thoth and Hermes had been the same, it would be difficult to imagine, how these places could have been called cities of Hermes, or Ermes. But this difficulty disappears, when we understand Ermes to signify the force of *Sol-generator*, represented by Sem. For *Smun*, or *Chem*, or *Mendes*, was no other than *Sol-generator*. Horus was likewise a symbol of the Sun; and according to Suidas, the idol of Priapus was called Horus by the Egyptians. From the description of that Egyptian image no doubt can remain of the identity of Horus and *Sol-generator*. Taken in other

points of view, Horus and Hercules were the same, as has been clearly proved by Jablonski in his Pantheon. Thus we can understand why the two places in question were also called after Hermes, or Ermes. Neither is it to be argued that Hermopolis (*magna*) was called the city of Thoth, because Herodotus has said that the bodies of the ibis (the bird of Thoth) were sent thither to be embalmed. The historian might have been deceived himself, by fancying that the city was called after Thoth, as he conceived Thoth and Hermes to be the same. But the mummies of the ibis were more probably deposited at a place, thence apparently called *Ibeum*, which was 24 miles distant from Hermopolis.

The Greeks endeavoured, but without success, to trace the name of Heracles to their own language. They probably obtained both the name and the worship of that deity from the Phœnicians. The same thing may be said of the Hercules of the Latins. The Phœnicians appear to have called their God חרי־כל, *Heri-col*, or חרכל, *Hercol*, or perhaps חרס־כל, *Herescol*, signifying *universal heat*, or *the universal Sun*. Per-

haps the name was composed of אור, *aur*, *lux*, *ignis*, *Sol*, (for the word bears all these meanings,) and חיל, *hil*, or *chil*, *robur*. The Greeks tell us, that the Tyrian Hercules was called *Μέλκαρθος*, *Melkarthos*. Some explain this name as having been in the original מלך־קרתא, *melech-karta*, *king of the city*—others think it was composed of *melech*, *rex*, and *Atser*, *Mars*, whom, according to the Greeks, the Phœnicians considered as the same with Hercules. Perhaps the Persian and ancient Armenian word *arta* was adopted by the Phœnicians. Every one knows that *melech*, *rex*, was a title continually given to the Sun; and *Melech-arta* would signify the great king. Be this as it may, *Melkarthos* was a title given to Hercules as representing the Sun. His proper name in Phœnician was probably similar to some of the words which I have mentioned above.

The Greeks appear to have taken their Hermes from the Egyptians; but they were not aware that this name did not belong to Thoth, but to the Egyptian Hercules. They therefore confounded the character of Thoth with that

of Hercules; and not only mistook these deities in some instances for each other, but confounded both with Anubis. Nor was this all. The Phœnician and Syrian idolators adored a deity whom they called מרכוליס, *Mercolis*. This God, as his name implies, was the God who presided over mercantile affairs; and heaps of stones, which were called מרגמות, *mergemoth*, were raised in his honour. We see here the evident prototype of the Mercury of the Latins, at least under one of his characters. Many years have elapsed, since I have read my own translation of Persius; and I forget whether I have cited, (at Sat. 5. v. 112,) the words of the old commentator, who says of Mercury, *ipsum deum lucri dicunt, unde et cum saccello pingitur, et a negotiatoribus plurimum colitur.* This deity was then easily connected with the Oriental Mercolis and with the Egyptian Anubis, whose name was supposed to announce him as the God of gold. Festus Pomponius (L. 2.) says—*Mercurius a mercibus est dictus; hunc etenim negotiorum omnium existimabant esse deum—et capite canino effingi solitum, quod canis sagacissi-*

mum sit animalium. But with the leave of Pomponius, I should say that the name of *Mercurius* is nothing else than *Mercolis*, which signifies *mercator*, altered to a Latin form. In the latter part of the sentence he clearly connects Mercury with Anubis.

From the whole of this statement I argue that the Greeks and Romans united in their Hermes, or Mercury, various deities whom the Egyptians and Asiatics considered as distinct. The reader will decide whether I be right, or not, in contending that the Thoth of the Egyptians was not the same deity whom they called Hermes; and that the Greeks mistook the name of the God who represented the *vis causalis generationis*, for that of the God who was the inventor of letters, and the father of the sciences.

36.

37. The 37th king is called Φρουρῶν, *Phrouron*, or Νεῖλος, *Neilos*. I have stated my opinion concerning this name in a former chapter. Jablonski thinks that the Nile was called *Phrour*, when its waters began to diminish after the annual inundation. The word ϩPOϒP, *hrour*,

signifies *tranquillity;* and therefore the river was called *Hrour*, or, with the article, *Phrour*, when the flood subsided. Jablonski endeavours to confirm his opinion by rather a singular argument. The men naturally cried *Phrour*, or *Hrour*, when the Nile retired within its banks, because all the frogs in Egypt, rejoicing in the mud, cried *chrour*.

One cannot help wondering how a man of Jablonski's learning could descend to such trifling as this. How happens it, that no writer but Eratosthenes, should have mentioned king *Phrouron;* and that no author, ancient or modern, ever gave the name of *Phrour* to the Nile, before it appeared in the pages of Jablonski; for Eratosthenes says—*Φρουρῶν, ἤτοι Νεῖλος, Phrouron, sive eilos; Phrouron*, otherwise called *Neilos*, reigned five years; which is not to say that Neilos is the interpretation of Phrouron, or that this name signified the river Nile.

38. *Ἀμουθάνταῖος, Amouthantaios.* I consider ΘΩΗ to be here put for ϚΩΗ. The Egyptian Ammon, Amon, or Amous, was supposed by the Greeks to be equivalent to Jupiter; and

this could not have been unknown to the priests of Diospolis in the time of Eratosthenes. They might then have meant to say Amous, who is the same with Zan, or Zeus; but having no letter in their alphabet equivalent to Z, they were obliged to supply it by a Θ, and to pronounce the name *Than*. But although this name be probably corrupted as given here, I should suppose that it signifies *the gift of Ammon-Jove*.

Such are the contents of the *laterculus* of Eratosthenes, and such the remarks which I have ventured to make on the explanations of Egyptian names contained in it. The reader will judge for himself, whether Eratosthenes could have been sufficiently versed in the language of Egypt, to execute with success the task which he had undertaken. For my own part I consider the names contained in this catalogue, though really taken from ancient monuments, as having been collected by persons very indifferently skilled in reading the hieratic writings; and as having been placed together without any attention to chronological order. I even ques-

tion whether several of these names were the names of kings.

VI. I conceive it to be quite unnecessary to occupy the attention, and to fatigue the patience of the reader, by laying before him the catalogue of Egyptian kings as made out by Syncellus. Neither shall I trouble him with detailing my objections to it. What could be expected from a monk of the 8th century, who pretended to enumerate the reigns, and to give the names in their order, of the Egyptian Pharaohs? This catalogue is, indeed, the mere compilation of a system-maker, who consults probability so little, that after having called Mitsraim the first king of Egypt, he gives to the third king the Greek name of Aristarchus.

Whether any modern chronologers have succeeded in reconciling the contradictory, and widely-varying testimonies of ancient authors concerning the chronology of the Egyptians, I pretend not to decide. A reconciliation may no doubt be effected, and in two different modes. *First*, we may take a certain number of names from each list, and without regarding how they

were placed by the author from whom we borrow them, arrange them in an order suitable to our own system. Then if a king's reign should be too long, or too short, in one list, we may find a more convenient duration for it, by taking another king's reign from another list. Should the difference of names seem to present a difficulty, we may get rid of it by the aid of a little etymological skill, by accusing either the author or the copyist of having written the word wrongly, making it what we want it to be by the change of a few letters. If similar events recur, as they will sometimes do in the history of a nation, and they require too much time to answer our purpose, we have only to compress them into one. Then should an event, which happened under one king, according to one author, resemble another event, which happened under another king, according to another author; and should it square with our system, to make the two kings one, and the two events the same, nothing can be clearer than the proofs of identity which we wish to establish. If a reign, or even a dynasty, incommode us, we need not

fear to suppress it. Perizonius, who dismisses fifteen dynasties at once, offers us a brave example. Finally, when we find that our ancient guides cannot be made to agree—that Eratosthenes contradicts Herodotus, and that Diodorus contradicts both, we may appeal to Manetho, who, it is true, generally contradicts himself.

Secondly, we may say that several different dynasties were contemporary with each other; and that for many centuries Egypt was divided into three or four separate kingdoms. By this expedient we shall get rid of various difficulties. We may place as collateral what dynasties we please. If one dynasty reign too long, we may melt down one half of it into another dynasty. If too many kings incommode us at Thebes, we may send some of them to reign at This; and if we have not enough of sovereigns at Sais, we can borrow a few from Memphis. There are indeed some stumbling-blocks in our way which we must get over as well as we can. The author of the old chronicle, and Manetho, give no hints of the existence of the dynasties which they

mention as having been contemporary. But this has happened, we may urge, because those chronographers wished to exaggerate the antiquity of the Egyptian monarchy. Herodotus and Diodorus clearly intimate that there was only one line of Egyptian sovereigns. These historians were deceived by the priests. Eratosthenes speaks of no kings who ruled in different parts of Egypt at the same time. Eratosthenes, we may observe, confined his chronological researches to Diospolis. Josephus does not object to Manetho, that the dynasties, which he represented as successive, were really contemporary. But the Jewish historian was more occupied with defending himself than with attacking others. It is more embarrassing to know why the sacred writers speak of no rival Pharaohs. The Hebrews, however, may have had to treat only with the kings who reigned at Memphis. It would seem from Homer, that in the time of Menelaus, Polybus, who dwelt at Thebes, was the sole monarch of Egypt. The testimony of a poet cannot avail much in a chronological question. Having thus put aside

the obstacles which stood in our way we may proceed to our work. We have then only to take the chronographies of the old chronicler, of Manetho, and of Eratosthenes; to pull them to pieces; and to build up, out of the scattered materials, such a system as shall please ourselves.

However easy and plausible one, or other, of these two methods may have appeared to some authors, I confess, I am unable to see how any satisfactory results can be drawn from them. Accordingly we find all the modern writers who have treated of the chronology of Egypt differing from each other. Petavius, who was perhaps the most able of any of them to conquer the difficulties which the subject presents, considered the attempt as fruitless, and abandoned the enterprise. In fact we might have all the records read by the priests to Herodotus and Diodorus, and all the inscriptions on *stelæ* explained by Manetho and Eratosthenes, without being much further advanced than we are at present. The archives read to the two historians were apparently forgeries invented by the

priests to supply the ancient records destroyed by the Persians. The inscriptions found on different *stelæ*, and obelisks, perhaps also on sepulchral monuments, could furnish no regular chronological series of the kings of Egypt. It may even be questioned, whether the names found on ancient monuments were all the appellations of kings. In the list of Eratosthenes we find *Penteathyris*, and this word seems rather to indicate a priest of the goddess Athyr, than to announce the proper name of a king. In the same list the 35th king is said to have been named the son of Vulcan, the same as Hermes. But Vulcan was said to be the first or among the first, of the divine kings who reigned over Egypt. If therefore the name were intended as a real one, the anachronism is evident. If it were assumed, what was the real name of the prince who took it? Manetho mentions a king of the name of *Thouoris*. This name is so like that of the goddess *Thoueris*, that we may well suspect Manetho to have fallen into an error, and to have mistaken the name of a deity for that of a prince. *Smedes*, or *Smendis*,

seems to be the same name which Diodorus writes *Osymandyas;* and all three are apparently corruptions for *Osmendes,* the great Mendes. But according to Herodotus Mendes was the eldest of the eight Gods of Egypt. The 4th king of the 4th dynasty is called *Mencheres* by Manetho. This name resolves itself into ⲘⲈⲚ-ϪⲈ-ⲢⲈ, *Men-che-re, Men-est-Sol.* But *Men,* according to Herodotus, or *Menes,* as Manetho writes the name, was the first mortal king of Egypt; and we have already seen, that *Men* signified the Sun. The name of *Cherres* is put after that of *Chencheres,* or *Chencherres;* and yet the former should have preceded the latter, because *Chencherres* (at least as I understand it) signifies son of *Cherres.* These remarks, and it would be easy to augment the number, seem to show, that names were put down in the lists of Manetho and of Eratosthenes with little attention to chronological accuracy. Some credit, however, may be given to the former, after he comes to the 26th dynasty. His confused account of the shepherd-kings, was probably founded on some obscure traditions concerning

the Hebrews; but it deviates so widely from the truth, that it can be of little service either to the historian, or to the chronologer. Besides, this account, such as we have it, rests upon the authority of Josephus. Upon the whole I see nothing which even approaches to certainty in the chronology of Egypt, previous to the reign of Psammetichus the first. Here and there a ray of light is cast upon our path by the Hebrew historians; but for the rest of our way we meet with nothing but intricacy, confusion, and darkness.

CHAPTER XIII.

Remarks on the history of Sesostris.

SESOSTRIS, says Manetho, (apud Euseb. Chron. L. 1.) was the greatest of the kings of Egypt after Osiris. But Osiris was an ideal being, the offspring of mythology, and the hero of fable, adored by the Egyptians sometimes as a deified mortal, sometimes as a personification of the Nile, and sometimes as the symbolical representative of the solar orb. We can take no interest in the fortunes of this imaginary deity; and we hear with indifference that the eldest of the sons of Saturn led his army to the uninhabited regions of India—to the sources of the Ister—to the realms that lie beneath the constellation of the Bear—and even to the shores of the frozen ocean. (Diodor. Sicul. L. 1. S. 27.)

Sesostris, on the contrary, is claimed by his-

tory as a real personage; nor can we reasonably doubt the existence of the monarch, however we may be inclined to question the exploits of the hero, and the achievements of the conqueror. The accounts, indeed, which have been preserved of the reign of this prince, afford no useless lesson to the reader, who wishes to examine how fact and fable have been mixed together in those fallacious records, which the priests of Egypt pretended to interpret to the credulous Greeks.

Shortly after the birth of Sesostris, his father is said to have assembled all the male children who were born on the same day with his son, and to have given to them all the same education. No distinction was made between the young prince and his companions. All alike were instructed in the use of arms, were engaged in the same studies, were trained to the same exercises, and were inured to the same hardships. We may form some idea of the privations to which they were accustomed, and of the rigid discipline which they were made to observe, from the fact stated by Diodorus, who

relates, that every member of this juvenile army was compelled to march 180 stadia, before he was permitted to take his daily food. (L. 1. S. 53.)

The father of Sesostris appears to have intended, in establishing this military seminary, to place around his son a faithful band of soldiers, attached to him by all those associations of early friendship, which, if any ties can be binding on the human heart, are naturally supposed to be the strongest and the most durable.

Arrived at the age of manhood, the prince and his companions evinced how much they had profited by their education. With bodies rendered vigorous and athletic by labour and exercise, and with minds cultivated by the best studies, they were already fitted to act both as soldiers and as generals—to serve with energy, or to command with skill. Sesostris himself, who was four cubits and four palms in height, seemed formed by nature to sustain all the toils and fatigues, to which his active life was afterwards exposed. (Diodor. L. 1. S. 55.)

This prince was sent at an early age by his father to command an expedition against the Arabians. Accustomed, as well as his companions, to suffer long both from hunger and from thirst, in following the pleasures of the chase, he could meet upon equal terms the wandering and yet unconquered tribes, who chiefly trusted for their defence to the barrenness of their inhospitable deserts. Arabia was subdued, and was annexed to the Egyptian monarchy. The same prince was still a youth, when he directed his march to the west; and his father lived to see the greater part of Libya conquered by his victorious son. (Diodor. L. 1. S. 53.)

When Sesostris mounted the throne, his military fame was already established. The qualities of his mind, his dauntless courage, and his daring ambition, seemed to be announced by his personal appearance; and the people, no doubt, easily associated the character of the hero with the robust frame, and the gigantic stature, of their new monarch. The success of his arms, in his wars with the Arabians and

Libyans, might have inspired him with the hopes of making yet more extensive conquests; but it is still difficult to conceive, how his victories over those hordes of undisciplined barbarians should have suggested to a king of Egypt the perilous plan of subjugating the world. If however we believe the Greek historians, this mighty project must have been already familiar to the mind of Sesostris when he succeeded to the crown. No time appears to have been lost by him in preparing his subjects for an enterprise, which could not be undertaken but in defiance of all the counsels of prudence. Various reports were artfully spread abroad, in order to attribute the schemes of the monarch to any other cause than to his own ambition. His daughter, Athyrtis, famed for her wisdom, proclaimed the facility with which her father would conquer the earth. But the success of the enterprise was yet more certainly prognosticated to the superstitious Egyptians by prophecies and divinations; by visions seen in the temples, and by signs observed in the heavens. Neither was it to be forgotten, that at the birth of Sesostris

the God Phthah had appeared to his father in a dream, and had predicted to this happy parent, that the new-born boy should one day become the master of the world. (Diodor. ibid.)

But Sesostris, however he might have trusted in prophecies, prodigies, and visions, had the good sense to reflect, that a king, who is not popular at home, should not think of making conquests abroad. His first object, therefore, was to secure the affections of the Egyptians. All were won, says Diodorus, as far as it was possible, by the munificence and clemency of the monarch—some by gifts in money—some by donations in land—some by emancipation from punishment—all by the gracious discourses of their prince, and by the suavity of his affable manners. Even traitors to the royal authority were allowed to escape with impunity; and public debtors, of whom there were many, were liberated from the prisons in which they had been confined. (Diodor. L. 1. S. 54.)

It was also necessary, in order to accomplish his purposes, and to bring his undertaking to a

fortunate conclusion, that he should provide for the tranquillity of his kingdom, and should leave none behind him, who either would, or could, attempt a revolution during his absence. With this view he made a partition of power among the chief men of the nation, and divided the whole territory of Egypt into 36 Nomes, or Prefectures, over which he appointed as many governors, each of whom was charged with the care of collecting the royal revenues, and of administering the laws within his own particular district. In so doing he created many dependents on his will, without having to fear any rivals to his sovereign authority. But he at the same time elevated his brother Armais to the rank of Regent of the kingdom; and except that this prince might not wear the regal diadem, he was permitted to exercise all the functions, and to assume all the pomp of a monarch. Thus did Sesostris, in the midst of the prudential measures which he was taking, lay a snare for himself, by too rashly confiding in the influence of fraternal affection. The possession of a throne has been generally found too tempt-

ing a bait for human virtue to resist; and though we may condemn his guilt, we can scarcely be surprised, that even a brother should become a rebel, when he thinks that he has only to put forth his hand, in order to grasp a sceptre. (Diodor. ibid. Manetho apud Joseph. contr. Apion.)

Sesostris now proceeded to raise an army, which, if we believe Diodorus Siculus, consisted of 600,000 infantry, of 24,000 cavalry, and of 27,000 war-chariots. The companions of his youth, trained like himself to the use of arms, and exceeding 1700 in number, were chosen by him as the leaders of his less experienced troops. Some of the most fertile lands of Egypt were assigned to them, in order that they might be undisturbed by pecuniary concerns, and might turn their undivided attention to military affairs. (Diodor. ibid.)

The impatient monarch at length commenced his brilliant career. It is in vain that we would compare the most celebrated captains of later times with the still triumphant Sesostris. His glory has suffered no eclipse; his success has

been equalled by no rival to his fame; and he must always continue to rank as the most fortunate among warriors, and as the greatest among conquerors. Libya and Arabia, as we have already seen, had submitted to his authority, when he invaded Ethiopia, and compelled the inhabitants, soon subdued by his arms, to pay him a tribute in ebony, gold, and ivory. (Diodor. ibid.) Even the ferocious Troglodytes yielded to the conqueror. (Strabo L. 16.) Still advancing towards the south, the Egyptian monarch passed the frontiers of Ethiopia, and entered into the country which produces cinnamon, (Strabo L. 17.) and which is known to modern geographers as extending beyond Sennaar to the mountains called the mountains of the Moon. Sesostris, according to Herodotus, (L. 2. c. 110.) was the only king of Egypt who reigned over Ethiopia; and he left in that country various monuments both of his power and of his piety. He dedicated a temple to Isis, near to the site where Ptolemais was afterwards built; (Strabo L. 16.) and on the promontory of Dira he erected a column, on which

an account of his passage was inscribed in sacred letters. (Strabo ibid.) It was probably in the Straits of Dira, now called the Straits of Babelmandel, that he joined his fleet, consisting of 400 long ships. (Diodor. L. 1. S. 55.) The inhabitants of all the islands of the Erythrean sea, and of the adjacent continent, were compelled to acknowledge him as their master. The victorious monarch next proceeded to India; and that vast and rich territory was added to his empire. But the ambition of Sesostris was not to be satisfied with this important acquisition, which might indeed be undervalued by a prince, to whom the gods had promised the conquest of the world. Having crossed the Ganges, he subdued all the countries which lie between that river and the eastern ocean. (Diodor. ibid.) Thus the Chinese empire itself must have submitted to the yoke of the Egyptian monarch; nor were the Scythian nations able to resist the torrent as it rolled westward through Tartary, behind the mountains of Imaus, and to the north of the Caspian sea, to the river Tanais, and the Palus Mæotis. Sesostris, at the head

of his still-unvanquished army, entered Europe; passed through Sarmatia, Dacia, and Mœsia, nor halted until he arrived in Thrace, where he erected columns, to perpetuate the memory of his victories, and to prove the extent of his conquests. (Diodor. ibid. Herodot. L. 2. c. 103.) From Thrace he crossed over the narrow straits of the Bosphorus into Asia Minor, and after having subdued the inhabitants of that fairest and most fertile region of the globe, he advanced into the well-watered plains of Colchis, rendered famous in Grecian story by the expedition of the Argonauts, and by the fable of the golden fleece. It was on the banks of the Phasis that he left a portion of his troops: whether in order to cultivate the land, or to repose from their fatigues, is not determined by the father of history, who seems not to doubt, however, that Colchis had been originally peopled by an Egyptian colony. (Herodot. L. 2. c. 103.) It was at this period, if we can trust to Manetho and Julius Africanus, that Sethos, or Sethosis, as he is named by these writers, conquered the Assyrian empire, and seated

himself on the throne which had once been occupied by Ninus, and Semiramis. (Manetho apud Joseph. contr. Apion. Jul. African. apud Syncellum.) But the splendor of the greatest names grows pale before the glory of Sesostris, whom the whole world saluted as King of Kings, and Lord of Lords, the proud titles which he had assumed, and which the conquered dared not refuse to the conqueror. Surrounded with the trophies of victory, and enriched with the spoils of nations, the Egyptian hero was not forgetful of his own fame as a warrior. In all the countries through which he passed, he left monuments behind him, which attested by no equivocal symbols, either the manly courage with which the inhabitants had endeavoured to oppose his progress, or the feminine weakness with which they had submitted to his power. When he condescended to think that the resistance which he had experienced was worthy of his notice, the following inscription appeared on the columns which he had erected—*Sesoosis, King of Kings, and Lord of*

Lords, has subdued this region by force of arms. (Diodor. L. 1. S. 55.)

But while Fortune had thus continued to smile on the military enterprises of Sesostris, she not the less had prepared the means of disturbing his happiness, and of endangering his life. Letters, addressed to the King by the chief of the Egyptian priests, announced to him that Armais had equally forgotten the duties of a brother and of a subject; had violated the person of the queen; had used the concubines of Sesostris as his own; and had even assumed the regal diadem. (Manetho ap. Joseph. contr. Apion.) On receiving this information the indignant monarch quitted Nineveh, where he appears to have been residing, and commenced his march towards Egypt. But his conduct was not that of a prince who expects to meet a competitor, and who fears that he may lose his crown. Palestine and Phœnice submitted to his arms; and he entered Egypt in triumph, as the lawful sovereign of the country; the conqueror of Asia, and the master of the world. His

pride forbade him to see a rival in his brother. He halted at Pelusium; nor seemed to know the revolution which had taken place in his absence. The guilty Armais was awed by the stern composure of the king; and he apparently dreaded to encounter him in the field, while he continued at the head of his veteran and unvanquished soldiers. He sought and found the means of being reconciled to the haughty but generous Sesostris. The queen and her children were sent to Pelusium; and her husband appears to have disbelieved that any violence had been offered to her person. Armais was restored to favour. In order to celebrate this happy event a splendid feast was given by the treacherous prince to the unsuspecting monarch and to all his family. The festivities of the banquet were prolonged to a late hour. Wine was served in abundance. The king became at length intoxicated, and retired to rest with his wife and children. His guards, likewise inebriated, were in no condition to be of service to their master. His royal guests and their attendants were all buried in profound sleep, when the traitor Armais

set fire to a large quantity of dry reeds, which had been previously heaped up completely round the king's tent; and when Sesostris and his family were awakened by the heat, they found themselves surrounded on every side by the flames. The pious monarch, putting his trust in heaven, addressed his prayers to the God Phthah; (Diodor. L. 1. S. 57.) but the queen, perceiving the perilous situation in which they were placed, suggested a plan of escape to her husband, which despair only could have dictated to a woman and a mother. Six of their children were with them. The queen persuaded Sesostris to throw two of them on the burning pile. The unhappy parents, with the rest of the family, passed over the bodies of these innocent victims, and thus escaped the fearful death with which all of them had alike been menaced. (Herodot. L. 2. c. 107.)

The criminal Armais met with more indulgence from fortune than his guilt deserved from justice. If we believe Manetho, he fled into Greece, where he assumed the far-famed name of Danaus, and finally mounted the throne of

Argos. But the fable of the fifty daughters of Danaus, who, with one virtuous exception, so cruelly revenged the quarrel of their father on the fifty sons of Ægyptus, was unknown to the Egyptians, and owed its invention to the fertile imaginations of the poets and mythologists of Greece.

Sesostris, having thus escaped from the plot which had been formed against his life, was now enabled to turn his attention to the welfare and to the internal interests of his kingdom. Inflamed with the desire of transmitting his name to posterity, not only as the greatest of conquerors, but as the most magnificent and patriotic of monarchs, he performed works, says Diodorus, not less admirable for the genius which they displayed, than for the sums which they cost; and thus obtained immortal fame for himself, while he consulted the interests, and provided for the future ease and security of his subjects. (Diodor. L. 1. S. 56.) The ancient Egyptians believed that religious worship is the best proof of the civilisation of a people; and that respect to the Gods is the first duty of a sovereign,

Sesostris caused a temple to be built in every city, in honour of the deity who was the object of its peculiar veneration. The captives taken in war were alone employed in constructing these edifices; and it was the proud boast of the monarch, that no native Egyptian was engaged in this hard and laborious service. (Diodor. ibid.) By the command of the same prince the cities of the Delta were surrounded with mounds, to preserve them against the effects of the annual inundation of the Nile; and canals were cut in every direction from Memphis to the sea, in order to facilitate commerce, and to carry off the superabundant waters. Thus also was the country secured against the invasion of foreign foes. Not only was the march of troops rendered difficult, but the use of horses and chariots was necessarily abandoned in a country every where intersected with canals. (Herodot. L. 2. c. 108.) The eastern side of Egypt was further protected against the attacks of the Arabians and the Syrians by a wall 1500 stadia in length, which extended from Pelusium to Heliopolis. (Diodor. L. 1. S. 57.)

Herodotus and Diodorus Siculus have mentioned other monuments of the power and opulence of Sesostris, more remarkable indeed for their magnificence, than for their utility. Among these we may reckon the ship which he dedicated to the deity principally adored at Thebes. This ship was 280 cubits in length, was built of cedar, was coated without with gold, and within with silver. On two lofty obelisks, each 120 cubits in height, he caused an account to be inscribed of the greatness of his power, of the amount of his revenues, and of the number of nations subdued by his arms. Statues of himself and of his queen, each 30 cubits in height, and of his children, each 20 cubits in height, and all single stones, were placed in the temple of Phthah at Memphis. (Diodor. ibid.) These may be considered as proofs of vanity unworthy of the conqueror of the world; but vanity is a weakness from which the greatest minds are not always exempt, and which in them, at least, may be easily forgiven. There were however other parts of the conduct of this prince, which are deserving of severer censure; nor can

we recognise the generous Sesostris in the haughty tyrant, who forgot the pity that is ever due to the unfortunate, and who caused his chariot to be drawn by the captive kings whom he had subdued in battle.

Such is the history, or rather the romance, of Sesostris. It is useless to complain of the improbabilities with which it abounds. Mankind, in every age of the world, have taken delight in the marvellous. The ancients seem often to have been pleased with reading romances in history; and the moderns, it would appear, are already beginning to read history in romances.

But however we may be disposed to admit that Sesostris was a great conqueror, the want of details renders it impossible for us to judge accurately of his talents as a military commander. We hear nothing of the generals, to whom he was opposed, of the cities which he besieged, or even of the battles which he fought. Historians relate his triumphs, but are silent with regard to the skill that obtained them. The story of the Egyptian monarch is indeed "passing strange;" but we are told of no incidents, of

no "hair-breadth 'scapes," which can give interest to the narrative; and our imaginations accompany the irresistible conqueror in his march, with the same indifference, that our eyes follow some champion of the turf, that walks over the course without a competitor for the Olympic crown. It is not thus that we read of the laurels won by later leaders of the war, from the days when Rome and Carthage contended for the empire of the world, to our own times, when, in a new field of Zama, another Scipio vanquished another Hannibal.

Sesostris erected columns and obelisks to perpetuate the memory of his conquests; but the best monuments of his fame, which a conqueror can leave behind him, are the institutions by which he has benefited the nations subdued by his arms. If Alexander unjustly wrested the sceptre from the feeble hand of Darius, he introduced into Asia the arts and the learning of Greece; built many cities; encouraged commerce; and ameliorated, as far as he could, the social state of his new subjects. If Cæsar had no right to deprive the Gauls and Germans of

their independence, he made amends to those barbarians, in diffusing among them the civilisation of Italy. The name of such a conqueror as Genghis Khan, or Timur Lang, is recalled like the memory of a mighty disaster, an earthquake, or a pestilence, that has shaken continents, and depopulated kingdoms. This is not our language when we speak of the conquests of the Greeks and Romans, who effected permanent dominion, and who improved the moral condition of the world by humane laws, and by a wise polity. The inhabitants of an Helvetian valley deplore the ravages committed by the mountain-torrent, and point with sorrow to the proofs which it has left behind it of its destructive force; while the natives of Egypt rejoice in the overflowing of the Nile, and bless the retiring waters, which seem only to have inundated the soil in order to enrich it.

We know little either of the good or evil done out of his own country by Sesostris. Diodorus Siculus (L. 1. S. 53.) has fairly acknowledged that the Greeks differed in their accounts of this prince; and that the Egyptian priests them-

selves were not agreed in their statements concerning him. It cannot then be a matter of much wonder, that we should now be embarrassed in determining what may be true, and what may be false, even where appearances of probability have been preserved, in the history of the hero of Egypt.

The first difficulty which occurs to us, in our enquiries concerning Sesostris, arises from the different names by which he has been designated by ancient writers. Thus he has been variously called Sesostris, Sesoosis, Sesochis, Sesonchosis, Sethosis, Sethos, Ramesses, Rammeses, Ramestes, Rhampses, Vexores, and Ægyptus. Most of these appellations, however, were titular. *Sesostris* may be Cϴ-ϬIOC-T-PH, *Se-sios-t-re*, which signifies, *filius domini, donum solis*. *Sesoosis*, may be, in like manner, a corruption for Cϴ-ϬIOC ϬIOC, *Se-sios-sios, filius domini dominorum;* and Ramesses, derived from PH, *re*, *Sol*, and UϴC, *mes*, *gignere*, may have signified, *begotten by the Sun*. But, as I have observed in the preceding chapter, it is impossible to render ancient Egyptian names, ac-

cording to the grammatical rules established in the Coptic language; and I have perhaps already trespassed too much on the patience of the reader by my etymological researches.

The confidence, with which some modern authors have fixed the epoch when Sesostris lived, must appear surprising to the enquirer who has no system to support. Upon few chronological questions are the testimonies of the ancients more discordant. According to Justin, (L. 2. c. 3.) Vexores made war against the Scythians 1500 years before the reign of Ninus. Agathias, less extravagant, says that before Ninus reigned, Sesostris established a colony in Colchis. (L. 2.) The poets who have sung the expedition of the Argonauts, Apollonius Rhodius, (L. 4. v. 272.) and Valerius Flaccus, (L. 5. v. 420.) represent the wars which the Egyptian monarch carried on with the Asiatic nations, as having taken place long before the arrival of Jason in Colchis. Dicæarchus asserts, that Sesonchosis reigned immediately after Horus, the son of Isis and Osiris. It is mentioned by Ælian, (L. 12.) that Sesos-

tris was instructed by Hermes; and the same prince is said in the Paschal Chronicle to have been contemporary with Hermes Trismegistus; but according to the Egyptian chronology, this Hermes flourished not less than 15,000 years before Christ; and to call Sesostris his pupil and contemporary, is in fact to call him Osiris, and to render him a fabulous personage. If we believe Aristotle, however, the reign of Sesostris in Egypt was long anterior to that of Minos in Crete; (Politic. L. 7. c. 10.) and Minos lived more than 14 centuries before the Christian æra. Sesostris is named by Manetho as the third king of the 12th dynasty. (Syncell. p. 60.) Of the æra of this dynasty I know not that any thing certain can be said, unless it be, that it must have preceded the departure of the Israelites out of Egypt by many centuries. But Manetho, who continually contradicts himself, has described the same prince, (apud Josephum,) under the names of Rammeses and Ægyptus, and consequently as reigning at no distant period from the Exode, 1451 years before the Christian æra. According to Herodotus, (L. 2.

c. 101.) Sesostris mounted the throne immediately after the death of Mœris, which we may reckon to have happened about 13 centuries and a half before Christ. Diodorus Siculus (L. 1. S. 53.) tells us that seven generations intervened between Mœris and Sesostris. This statement would bring down the accession of Sesostris to the throne to the year 1119 before our æra. If we credit Josephus (Antiq. L. 8. c. 10.) Sesostris was the same with Shishak, who sacked Jerusalem in the time of Rehoboam, 971 years before Christ.

Amidst these conflicting testimonies, modern chronologers have generally followed either Herodotus, or Josephus. In favour of the opinion of the latter, several writers have contended with more zeal than success. No Greek writer has brought down the reign of Sesostris to so late a period, as that mentioned by Josephus. Herodotus, it is true, has said, that he saw in Palestine of Syria, which had been columns erected by Sesostris, who, according to the Jewish antiquary, was the same with Shishak. If, however, Sesostris had enriched himself with

the treasures collected by Solomon, and had plundered the temple of Jerusalem, it is very unlikely that these facts should have escaped the notice of the Greek historians, who seem to have been peculiarly anxious to obtain information concerning the life and reign of the hero of Egypt.

Shishak, it has been observed to me, bears some resemblance to Sesochis, one of the names by which Sesostris was known to the Greeks. If indeed we believe Syncellus, the king called Shishak in Scripture was called Soussakeim by the Egyptians, and mounted the throne in the year of the world 4478, which, according to the reckoning of this chronographer, would answer to the year 1022 before Christ. But this is an argument which may be easily left aside. There are few who would propose to prop the doubtful authority of Josephus by the yet more doubtful authority of Syncellus. We may admit, that some of the Greeks confounded the name of Sesostris with that of Shishak, or Soussakeim, and called the great conqueror Sesochis; but the accounts contained in the sacred writings by

no means authorise us to suppose, that Shishak was the same prince, who gave to himself the appellation of Ramestes on that celebrated obelisk, of which the inscription in hieroglyphics has been interpreted by Hermapion. The expedition of Shishak against Judea appears to have been merely a predatory incursion; (2 Chron. c. 12.) and Josephus himself admits, that when the Egyptian king had plundered Jerusalem, he returned home with his booty, and left Rehoboam in the quiet possession of his kingdom. (L. 8. c. 10.)

It is further to be observed, that Jeroboam had fled to Shishak in the reign of Solomon. Shishak had therefore remained in his own country, until nine years afterwards, when he took advantage of the dissensions among the Jews to invade their territories. We find no resemblance in these accounts to those, which have been given to us of the conquests of Sesostris, who made no permanent residence in Egypt, until he had returned triumphant from Asia.

Herodotus has said, (L. 2. c. 102.) that after his naval expedition on the Erythræan sea, Sesostris returned to Egypt, and thence pro-

ceeded to invade Asia by land. This was the period, it is argued, when Sesostris, or Shishak, invaded Judea. But allowing the account of Herodotus to be accurate, though it be plainly contradicted by Diodorus, yet there can be no question from the testimony of the Halicarnassian historian, that Sesostris extended his conquests far beyond the limits of Syria. Is it probable, then, that he would have advanced into Asia Minor, without having first entirely subjugated the whole of Syria, or that he would have left Judea behind him, powerful enough to intercept him on his return to Egypt, should any disaster have befallen his army?

If Sesostris and Shishak had been the same, it would be in vain to speak of the conquests of the Egyptian monarch, as having been extended into Asia beyond the Jewish territories. The Hebrew historians would surely not have failed to mention the fact, if the plunderer of Jerusalem had been the conqueror of Asia.

Herodotus has said, that Sesostris was the only king of Egypt who reigned over Ethiopia; and it has been observed, that Shishak is stated

in the second book of Chronicles to have brought up with him out of Egypt the Lubim, the Sukiim, and the Ethiopians. The Lubim were Libyans; the Sukiim were Troglodytes, who dwelt in caverns on the coast of the Arabian gulph, near to the site where the city of Suez now stands; and the Cushim, improperly translated Ethiopians, were the inhabitants of those districts of Arabia which lie next to Egypt, and which appear to have been long subject to that kingdom. The possessions of the Cushim, or descendants of Cush, were not confined to Ethiopia. If we turn to the 14th chapter of the second book of Chronicles, we shall plainly see the error, where the Vulgate has the words, *Zara Æthiops;* and again, *et persecutus est eos Asa et populus, qui cum eo erat, usque Gerara; et ruerunt Æthiopes usque ad internecionem;* and again, *et percusserunt civitates omnes per circuitum Geraræ.* Now if the translators had reflected for a moment, they would not have called Zara an Ethiopian, nor have made the Hebrews smite the cities round Gerara, apparently because they belonged to the Ethio-

pians. The error is equally obvious, where it said in the 29th chapter of Ezekiel, *daboque terram Ægypti in solitudines, gladio dissipatam, a turre Syenes, usque ad terminos Æthiopiæ.* The version should have been *ad terminos Arabiæ.*

According to Herodotus, neither horses, nor carriages, were in use in Egypt after the reign of Sesostris, owing to the canals which had been cut by that monarch. But Shishak came up against Jerusalem with 1200 chariots, and 60,000 horsemen. It follows, that Shishak and Sesostris were the same, unless we should refer the reign of the latter to a yet later date. It likewise appears that Solomon was furnished with horses and chariots from Egypt. (1 Kings c. 10. v. 28.) Horses and carriages might have been in little use among the Egyptians, when Herodotus visited their country; but it is by no means probable, that this had happened because Egypt was every where intersected by canals. There are some parts of England, and many parts of Holland, which abound with canals; and yet there is no want of horses or carriages in either of those countries. Where men

can make canals, they can also make bridges. The priests concealed the truth from the Greek stranger; and were unwilling in this, as in various other instances, to confess the state of humiliation to which Egypt was reduced. The horse was an animal most highly valued by the Persians, and not the less so, that horses, as we learn from Xenophon, were not numerous in Persia. We may easily believe, then, that the Persians had carried away with them all the horses which they could find from Egypt, before Herodotus had arrived there; and as his visit to that country took place during one of those short intervals when the Egyptians were free from the yoke of their masters, it is not surprising, that he should have remarked the paucity both of horses and of carriages.

Upon the whole, then, it appears to me, that the opinion of Josephus, with regard to the identity of Sesostris and Shishak, is untenable. It is in no manner supported by the authority of Scripture; and it is clearly proposed in contradiction to the testimony of every ancient writer, who has recorded the history, or who has even

mentioned the name of Sesostris. Diodorus Siculus brings down the reign of this monarch to a much later period than any other Greek writer; and yet, according to his account, Sesostris must have flourished nearly a century and a half before Shishak. Those persons therefore, who would oppose the authority of Josephus to that of all the Greek historians and chronographers, ought to be able to advance some better reasons than have yet been given, for the preference which they would accord to the Jewish antiquary.

The date of the reign of Sesostris, as it may be fixed from the testimony of Herodotus, has been adopted by several modern chronographers, and has been defended with much warmth by Larcher, the celebrated translator of the Halicarnassian historian. Several objections may be urged against the conclusion to which Larcher has come.

1. The father of history differs from every other Greek writer, who has spoken of the period when Sesostris reigned, if we except Strabo,

who, however, has only vaguely said, (L. 17. p. 804.) that Sesostris began the canal, between the Red sea and Pelusium, before the Trojan war.

2. The chronology of Herodotus, taken from the time of Mœris to that of Cambyses, is liable to great objections, and contains some evident errors, as I have already proved in the preceding chapter.

3. If Sesostris mounted the throne 1356 years before Christ, as is asserted by Larcher, who builds his calculation on the authority of Herodotus, the Egyptian king must have invaded Colchis at no great distance from the time when the expedition of the Argonauts took place, since Larcher himself fixes the date of that expedition for the year 1350 before the Christian æra. How has it happened then that Apollonius Rhodius, who flourished at Alexandria in the time of Ptolemy Euergetes, and who ought to have been accurately informed upon every point relating to the subject of his poem, has represented the Egyptian conqueror as having existed long before the age of Jason. (L. 4. v. 272.

et seq.) Apollonius, it is true, does not name Sesostris; but he clearly indicates that prince; and so his scholiast understood him.

4. Hercules, we are told by Homer, (Il. 5. v. 641.) made himself master of Troy. But Larcher places the capture of Troy by Hercules 26 years after Sesostris began to reign; and consequently all Asia Minor must have then appertained to the king of Egypt, as is clear from the testimony of Herodotus himself, as well as from that of Diodorus Siculus. Is it not then very extraordinary, that Homer should have said nothing of a conqueror who had subdued the world, and to whom Troy must have belonged, when it was assailed by Hercules? Laomedon could only have been the lieutenant of Sesostris, and must have held the reins of government in trust for that prince.

5. Herodotus saw two of the statues of Sesostris in the Asiatic Ionia. Both were carved in rocks. One was to be seen between Ephesus and Phocæa, and the other between Sardis and Smyrna. According to Larcher, Sesostris died 32 years before the Trojan war. Is it not sur-

prising, that Homer should have said nothing of a monarch who had conquered Asia Minor, and who died only 32 years before the siege of Troy? The great poet, himself an Ionian by birth, and generally supposed to be a native of Smyrna, could not have been ignorant of the fact, if Sesostris had been the contemporary of Theseus, of Jason, of Ægeus, of Œdipus, and of Nestor. How could he forget to tell, that Hercules had wrested the city of Dardanus from the grasp of the conqueror of the world?

6. Aristotle could not be ignorant of the statement of Herodotus. Had he believed it, he would have said, that Sesostris reigned long after the time of Minos. He has said just the reverse.

7. We may infer, not only from the columns which were erected by Sesostris in Palestine of Syria, (and which were seen by Herodotus,) but from the accounts given by Manetho and Diodorus Siculus, that the whole country, from the Nile to the Euphrates, had been subdued by the Egyptian conqueror. It follows that the Hebrews must have submitted to his yoke.

But the sacred writers, who have related the events which happened in Judea, contemporaneously with the æra assigned to the reign of Sesostris by Herodotus, are entirely silent with regard to that monarch. On a reference to the book of Judges, not the slightest intimation will be found of the Egyptians having made any incursion into Asia from the year 1400, to the year 1300, before Christ.

8. Larcher has indeed contended, that the columns seen by Herodotus might have been placed in the vicinity of Ascalon, where the territory, though not belonging to the Hebrews, was still included in Palestine of Syria. Allowing this lame argument not to be lame, how shall we suppose that Judea had escaped the fate of all the kingdoms in its neighbourhood? It would surely have been very strange, if the Egyptian conqueror had left one insulated spot untouched, and should have exempted Judea from the fate of all the countries adjoining to it. It would have been stranger still, if such an exception had been made in favour of the Hebrews, that no

notice should have been taken of it by those who wrote the history of that people.

9. But Larcher's argument is totally untenable. Herodotus clearly meant that he had seen the columns of which he spoke in Judea; and so Josephus understood him. It appears, not only from the testimony of Manetho, but from the better authority of Diodorus Siculus, that Sesostris must have been master of the whole Assyrian empire. He permitted his Chaldean captives to build a city in Egypt, to which they fondly gave the name of Babylon. (Diodor. L. 1. S. 56.) How then can it be for a moment supposed, that Judea, which lay directly in his way from Egypt to Assyria, was spared by the conqueror? For what reason was the master of Arabia, Syria, and Phœnice, to turn aside from Judea? If the Greek historians have spoken the truth, there can be no question, that the country inhabited by the Hebrews must have been subdued by Sesostris. Whether this event took place before, or after, the land was occupied by the posterity of Abraham, it must be

admitted to have existed, by all those who read and believe the history of the Egyptian conqueror.

10. Although Josephus must be considered as mistaken, when he attempted to prove, that the Sesostris of Herodotus was no other than the Shishak of Scripture; yet the Jewish antiquary might have truly urged, that the conquest of Palestine of Syria could not have taken place at the time assigned for it by the Greek historian. In fact we hear nothing of Egypt from the sacred writers from the time of the Exode, until the year 1014 before Christ, when Solomon married the daughter of Pharaoh. How is it then possible to believe, that Asia could have been conquered during any part of this period, unless we suppose, what is incredible, that so important an event had taken place without the knowledge or the notice of the Hebrew historians?

It would be in vain to deny to the traditions of ages, to the records of history, and to the authority of monuments, that Sesostris must have been one of the greatest princes that ever

lived; while we may fairly confess our doubts of the extent of his conquests, and acknowledge that we cannot ascertain at what period he flourished. The existence of the monarch we may consider as certain; and some of the achievements of the conqueror we may admit to be probable; though we cannot fail to perceive, that the number of his triumphs has been amplified by exaggeration, and that the history of his reign is crowded with fictions. It is known that the great Ramesses, or Ramestes, erected at least one obelisk, on which he announced himself to be loved and gifted by all the Gods of Egypt; but it may be questioned whether he had a right to call himself the master of the whole habitable world. We may believe that Sesostris obtained many victories, and subdued many regions; while we may still avow that we are unable to tell when this mighty monarch reigned, where were the limits of his empire, what humbled nations bowed down before his throne, or what captive kings were yoked to his triumphal car. When the face of day is obscured by clouds and mists, we doubt not that the sun is shining above,

though we can neither discern its orb through the gloom, nor point out its place in the heavens.

END OF BOOK IV,

AND OF VOL. II.

P. S. The third volume will contain remarks on the origin of the Phœnicians, of the Arabians, and of some of the nations of Asia Minor.

CORRIGENDA.

VOL. I.	p. 24,	l. 10.	for	ضورائير	read	ضوراستير
	56,	9.	—	*with other*	—	*and other*
	78,	5.	—	كانه	—	خانه
	154,	17.	—	עמרד	—	עמרה
	155,	9.	—	علثون	—	التون
	183,	19.	—	*third*	—	*second*
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